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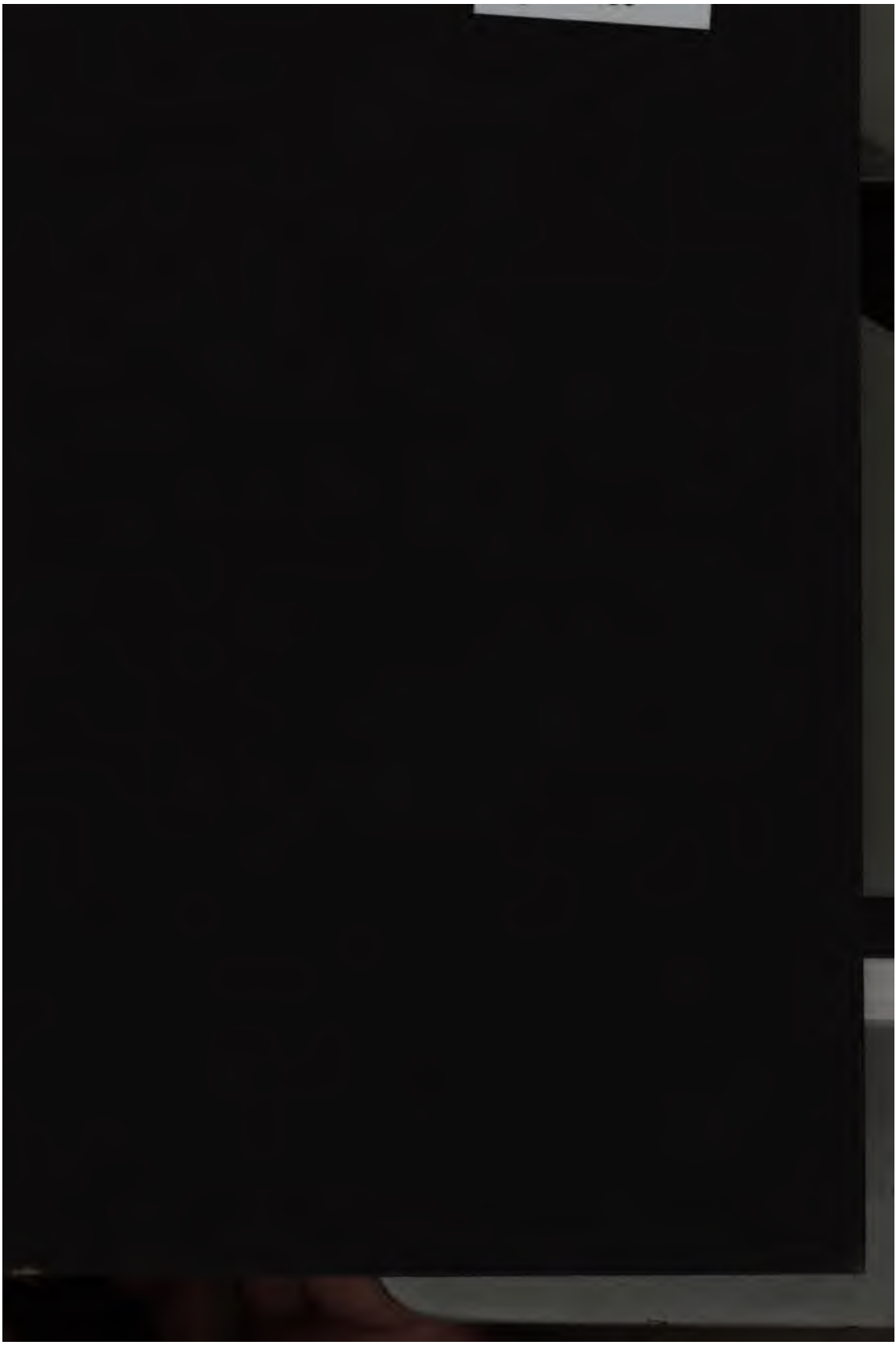

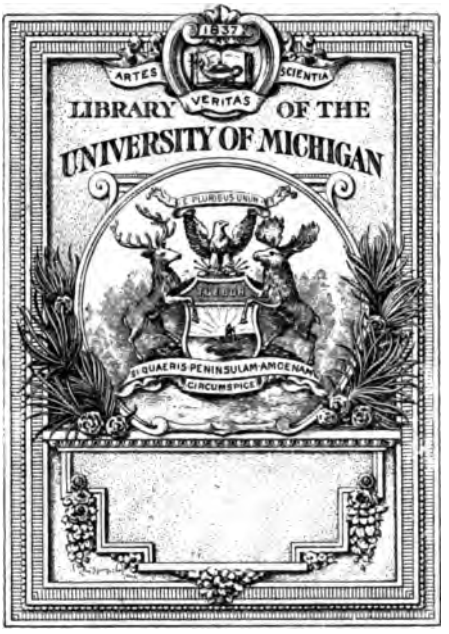
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CANADA
MEDICAL AND SURGICAL JOURNAL.

A

Monthly Record

OF

MEDICAL AND SURGICAL SCIENCE.

EDITED BY

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CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

On Adulterations.—A Lecture delivered before the Pharmaceutical Association of the Province of Quebec. By G. P. GIRDWOOD, M.D., M.R.C.S., England, Professor of Practical Chemistry, McGill University.

The notices of this meeting state, under the head of business of the evening, Lecture on Adulteration, by myself. When asked to give a lecture, I felt a difficulty in finding a subject which I thought would be acceptable. I selected my present subject as being one on which all present would be able to express an opinion, and in the hope that it would lead to a discussion, which would probably be more advantageous to all parties than the few remarks which I may offer, and which you have kindly dignified by the title of Lecture. You have all heard or read of the Adulteration of Food and Drug Act, as it is called in the old country, and of its working, and doubtless have been led to the now celebrated Citrate of Magnesia case which has recently formed a subject of very lengthy discussion in the public print.

I will, firstly, try and define the meaning of the word adulteration, for on the meaning of the word everything in the shape of argument depends. I doubt not you have all a ready answer to the question, What constitutes an adulteration? and every man in his own mind has a vague idea of what he means when he uses the term.

In its derivation from the Latin, "ad to" and "alter

another," we have a definition, in its strictest sense it is the admixture of one thing with another.

Dr. Johnson, in his Dictionary, says :—

"To adulterate," to corrupt by some foreign admixture, to contaminate.

"Common pot ashes, bought of them that sell it in "shops, who are not so foolishly knavish as to adulterate "them with salt-petre, which is much dearer than pot-"ashes."—*Boyle.*

"'Adulterate,' adj. 2nd. Corrupted with some foreign "mixture. It does indeed differ no more than the maker "of adulterate wares does from the vendor of them."—*Government of the Tongue.*

"They may have all their gold and silver; and may "keep their adulterate copper at home."—*Swift's Miscellanies.*

"Adulteration," the act of adulterating or corrupting by foreign mixture; contamination.

"To make the compound pass for the rich metal, simply "is an adulteration or counterfeiting; but if it be done "avowedly, and without disguising it, it may be a great "saving of the richer metal."—*Bacon's Natural History.*

"The state of being adulterated or contaminated, such "translations are like the adulterations of the noblest "wines; where something of the colour, spirit, and flavour "will remain."—*Felton on the Classics.*

These quotations from standard authors show the sense in which the word has been used so far as connected with my present subject; but still this definition does not altogether please me; it is difficult exactly to give a definition that meets the meaning of the word as used at the present day; for the meaning of words is constantly undergoing change, and that, perhaps, may be the reason for a definition of the word being left to the magistrates to decide, by the framers of the Imperial Act.

As in this country the Legislature copies the Acts of Great Britain, when it can, we may expect some such Act

will, ere long, be brought forward here. In fact the thin end of the wedge is already driven in, in the late City bye-law about the adulteration of milk, and the question is just now again brought up by the butter frauds which have lately occurred.

It will, therefore, be well to look into this subject, so that when the time comes a reasonable and intelligent Act may be passed if it become necessary.

As a matter of course, those articles which affect us immediately will be the first to which attention will be paid—food and drugs. Food will only affect you as a member of the community, but drugs, and I may add chemicals, affect your business particularly.

I have not been able to obtain a copy of the Imperial Act, and, therefore, can only judge of its working by the reports which are contained in the journals to which I have access.

It will be well now to go back to a history of the conditions which brought about the need of this law. That it has been the custom for men to enrich themselves at the expense of others is evident, and this lies at the bottom of all adulterations, properly so-called, and I will here add what I take it is wanting to complete Dr. Johnson's definition, it is that, the admixture of foreign substance must be made not only to corrupt, but it must be made purposely with intent to increase the profit and thereby to deceive.

The earliest adulterations were probably practiced in the noble metals, as being least easy of detection and as producing the largest results, and the earliest laws on the subject, apply to silver and gold, where we find the terms "sterling" and "standard" in common use, denoting a certain value of either metal, not denoting that the metal is pure or fine, as it is termed, for by law all silver and gold wares are permitted to be adulterated with some baser metal, the added metal being termed "allay" or "alloy" from "a la loi" to the law, and the whole is term-

ed "standard" or "sterling." The word Sterling, Camden, in writing of Stirling Castle, says :—

"They are much mistaken who think that our good and lawful money of England commonly called sterling money, takes its name from hence; for that came from the Germans, who were termed Easterlings by the English, from their living eastward, and who were first called on by King John to reduce the silver to its due fineness, and such money in ancient writings is called Easterlings."

This admixture with baser metals is necessary to the due working of the gold and silver; and is thus noticed in "The Touchstone of Gold and Silver wares." "Our forefathers considering that silver in its finest degree would be too soft for use and service (for the finest silver is almost as soft as lead) did consult together to reduce or harden the silver (by allaying it with baser metal) to such a degree that it might be both serviceable in the works and also in the wearing keep its native whiteness."

We have also the authority of Hudibras –

"For fools are stubborn in the way
As coins are hardened by th' allay."

Therefore this depreciation by admixture of a baser metal is not an adulteration, but is made really to give to the fine metals a durability they do not possess of themselves; and at as early a date as Edward the First, laws were passed regulating the amount of alloy to be used in the manufacture of silver and gold wares. Similar laws are still in force in England to the present day.

"Ale was known and made by the Egyptians 404 B. C. It is mentioned by Xenophon in 401 B. C. The Romans and Germans made it from corn. Ale houses are mentioned in the laws of Ina, King of Wessex, A.D. 688. Booths were set up in England in 728, under law, and various laws were subsequently passed. One in the reign of Henry the Eighth, to prevent the use of hops, which were first introduced from Flanders; and the City of London petitioned the Parliament against two anuisances. These were, New-

castle coals, in regard to their stench, and hops, in regard they would spoil the taste of drink, and endanger the people." So here we see that what was considered an adulteration in the days of Bluff Harry, is now no longer an adulteration.

Passing by other things I come to our own time, when we find that it was customary to mix all sorts of things with something else, either to produce an artificial colour not indigenous to the substance itself, or to add a flavour, or by adding something cheaper to make the substance pass muster as what it purported to be. These practices would more properly come under the head of adulterations. This state of things at last reached such a point that the London *Lancet* called public attention to the subject by its "Analytical Sanitary Commission," wherein the editors sought to point out the extent of the practice, by purchasing articles at different shops throughout the metropolis, and giving an analysis of these samples to the public.

I have now stated what, I believe you will all agree with me, is an adulteration, and I have traced up the practice from early days to our present time. Let us for a few moments examine into the causes which lead to adulterations, and lastly consider the best means of preventing them.

As to cause, I should say it is manifold. First, cupidity on the part of the merchant, manufacturer, or tradesman, who either manufactures an adulterated article, or who adulterate a pure article and resell it again, or who still further adulterates an already adulterated article.

The desire of the manufacturer, merchant, or tradesman to undersell his neighbour. And lastly, the vitiated taste of the public who has been taught to prefer the adulterated article to the pure, or the desire of obtaining inexpensive (not cheap, for the cheapest are often, after all, the worst and dearest) articles for consumption, regardless of quality.

If we come to ask what are the articles that are commonly adulterated, I would answer almost every article

sold is more or less the object of adulteration. The old colloquy between the sanctified grocer and his apprentice, has become proverbial: "John. Yes sir. Have you dusted the pepper? Yes sir. Have you floured the mustard? Yes sir. Have you sanded the sugar? Yes sir. Then come to prayers," typifies the retailer who trys to make his wares do duty for a larger amount of money than they should. Besides these articles which have been proved to be largely adulterated, may be mentioned in this trade, anchovies and anchovy paste mixed with red lead, to give them a brilliant colour. This I saw done in one of the largest manufactories in London, and, on asking, was told, "Oh yes, we make pure anchovy paste, but it has but a very small sale, the public think it adulterated." In pickles copper is constantly added to give a fine green colour. I once was out in the backwoods eating lunch at a country inn, with a friend, to whom I remarked that the pickles looked suspicious, and taking a three-pronged steel fork I set it in the pickles, and in a few moments it was covered with a beautiful copper covering. The old landlady admitted they were home made, and she had put in a little "werdigrease to give um a colour." To mention coffee and chicory would be stale to you, and roast beans for chicory.

Tea with dried second hand tea leaves, dried leaves of other plants, faced with gypsum, soapstones, prussian blue, yellow ochre, iron filings, and sand, and in this particular article we find not only merchants in the country, importers, and retailers adulterating and selling such mixtures, but John Chinaman, either setting the example or imitating his barbarian customers, manufactures his lie tea out of plaster of Paris most ingeniously rolled up to represent tea. Indigo made up of prussian blue and plaster of Paris. White lead made up of zinc white and sulphate of barytes. Wooden nutmegs and hams, etc. In drugs, opium adulterated, in Turkey, with dirt and seeds and leaves that do not belong to it. Oils of various kinds essential and fixed.

Wines, bread, etc., in fact everything where the ingenuity of man can devise a fraud on his neighbour, so as to make a little more profit. Some of these adulterations are harmless, except pecuniarily. Others, however, are injurious to health. The former may be left to be dealt with by the ordinary laws, but where health is concerned it is another matter, Then the law should step in and say this must not be, and should appoint persons to carry out that law.

As to the best mode of preventing adulterations, I would suggest, a more enlightened and extended education, on all points, moral as well as physical and intellectual.

Moral education will prevent a man from defrauding his neighbour, physical will make him ashamed of such an act, and intellectual will enable him to detect it in others, and now gentlemen, more especially my younger hearers, I would advise you for this purpose to study hard at chemistry, and I cannot better close my remarks than by reading a portion of Mr. Standford's address to the Glasgow Philosophical Society, Chemical Section, Dec. 8, 1873.

"It had at last been admitted that the three R's did not *entirely* qualify a boy for society, and that even Latin and Greek, however well caned or birched into him, were not a *perfect* mental training. We had awakened at last to the belief that he ought to know *something* about the air he breathes, the food he eats, and the fluids he drinks. Some sanguine individuals had thought that even the earth he lives on should not be in every sense beneath his notice. Physical science as a mental training must sooner or later be recognized. Even with very young boys there could be no more valuable study than qualitative analysis; he knew of nothing which so easily brought out the powers of observation and reasoning, and these powers would retain their influence on the mind long after the problems of Euclid had faded from the memory; Humboldt says: "To behold is not necessarily to observe, and the power of comparing and combining is only to be obtained by education. It is much to be regretted that habits of exact

observation are not cultivated in our schools: to this deficiency may be traced much of the fallacious reasoning, the false philosophy, which prevails.

"The late Dr. Guthrie, in his "Autobiography," did not lament the accident which made him substitute the study of physical science for that of mathematics. Faraday's discoveries showed that the former was much more useful practically than the latter, and the minds of these two men in their breadth, and their depth, and their fulness, showed the value of science teaching. We might look confidently for a large spread of this teaching in the present century.

"The Adulteration Act would, when it was properly amended, and made universally compulsory, give increased employment to a large number of chemists, and even now the appointment of Medical Officers of Health in many places showed that the right men could not be got in sufficient number, or that the qualifications for the office were entirely misunderstood. Of all analysis there was nothing so difficult as the detection of adulterations; it required the very highest qualifications—not only the most consummate facility in ordinary analysis, but a large experience of trade, and a perfect knowledge of Materia Medica, and of the sources or manufacture of all our necessities.

"Unfortunately, it had hitherto been mostly in the hands of microscopists; but now, when we were to punish the delinquents, we must have exact chemical quantitative evidence. In many cases the methods to attain this had yet to be discovered.

Case of Double Mammary Abscess occurring ten days after delivery. Syphilitic History.—Use of drainage tube.—Recovery. By T. JOHNSON ALLOWAY, M.D., L.R.C.S.E.; L. R. C. P. EDIN; late H. M. Royal Navy.

The subject of the following case, an apparently healthy young English woman, aged 24, was attended in her confine-

ment by me, on the 3rd of January last, giving birth to a full-termed, healthy child. This was her second child, the first was still-born, at seven months maturity. On the 11th January I was unexpectedly called away from town and on my return, on the morning of the 13th, I found a message awaiting me, to attend as soon as possible. On my arrival I found her out of bed, lying upon a sofa, suffering intense pain in both breasts, which were greatly enlarged and so tender that she would scarcely allow me to examine them. From the left breast a purulent discharge was freely oozing through a small ulcerated opening, about half an inch above the nipple. There was no opening on the right one as yet, but distinct fluctuation could be felt exactly in the same position, viz., just over the nipple. I, at once, passed a bistoury into the opening of the left breast, enlarging it and allowing a free discharge of creamy pus, which when evacuated amounted to about oz. iv. I then opened the abscess in the other breast, in its most pendent part, which was just above the nipple, obtaining from it about oz. iii. of pus. She was now placed in bed, with hot, carbolised poultices applied and ordered to be changed every four hours. Ordered iodide of quinine, with 6 oz. of wine daily, and bowels justly regulated.

During the following six or seven days I removed, by gentle pressure, large quantities of pus, at the morning and evening visits. Her pulse continued very high throughout, ranging from 140 to 150. An opiate was occasionally administered at bed time, to relieve pain, etc.

On the 20th, fresh abscesses began to appear and point at the most pendent part of both breasts, when Dr. Roddick kindly assisted me in placing her under chloroform and passing a drainage tube transversely through the submammary areolar tissues of each breast, by which we obtained a large quantity of pus. From each of the openings made for the tubes, communications could be obtained with the first formed and superior opening, traversing the centre of each breast in several directions, showing that

the organs were broken down very extensively by the suppurative process, and that the gland structure itself was much involved. Poultices were now applied as before, iron, quinine, pot., chlor., and digitalis ordered with oz. ii. brandy, to be increased to oz. x. daily. From this date up to the 25th, both breasts continued to improve, the discharge diminishing, pain, swelling, and all inflammatory symptoms disappearing daily. But in the upper and outer part of the left breast, fresh abscesses began to appear, involving the glands of the axilla, and causing a good deal of pain. These abscesses seemed to be as yet but sub-mammary and local in character. I wished, therefore, to open them at once, but she would not allow me, fearing that she would faint from her weakened condition. Dr. Roddick again assisted me, when I freely incised three more abscesses, under chloroform, obtaining about oz. i. of pus in all. Drainage tubes were now removed, and poultices continued. For the next few days she continued very low, from the exhaustive drain her system had suffered. Her pulse remained all the time very high but full and strong, due, I imagine, to the influence of proximal irritation upon the heart itself, and to the exhaustive drain acting upon the nervous system generally, I may here remark that although she was taking m xx. doses of the tinct. digitalis every four hours, the heart's action, which sometimes ran as high as 165, was not in the slightest degree influenced by the drug.

28th.—Discharge from both breasts now almost ceased, appetite returning. Pulse still very high. Applied carbolic lotion dressing to both breasts. Tonic mixture continued, with wine, brandy omitted. Ordered small doses of green iodide mercury, the reason for which will be seen hereafter. The principal food she had taken throughout consisted of beef tea and milk, occasionally with an egg beaten up in the latter. By the end of the first week in February, she had sufficiently recovered to walk out and resume her household duties.

In connection with this case there is an interesting fact I may here state, viz.: A syphilitic history. The patient states that about three years ago, just before the premature birth of her first child, a rash broke out over her body which formed into "boils," then dried up and fell off in scabs, with the exception of several large ones on the anterior tibial aspect of the right leg, which coalesced and formed an ulcer somewhat larger than a walnut; this was probably rupia. Nocturnal pains troubled her a good deal, her appetite failed, she lost flesh, and became very miserable, so much so that her friends thought she was consumptive. Up to January, 1873, when she came to me for the first time, she had applied several remedies to the ulcer, but obtained no relief. She then also told me the very important fact that her husband had an ulcer on his leg, which had existed for some time, but for the relief of which he would seek no treatment. On questioning him, I satisfied myself that he was the subject of syphilis. I at once completely cauterised the ulcer on her leg with the acid nitrate of mercury, followed by linseed poultices, and placed her on hyd. iodid virid, potass iodid, tinct. cinchonae, etc. Next day carbolic oil dressing (1-40) well protected by oiled-silk, was applied, leg bandaged and dressing changed twice a day. On the third day the green iodide affected her bowels, when I added small doses of tinct. opii., which at once counteracted that tendency.

On the fifth day she stated that she had rested comparatively well the previous night, and felt altogether much relieved.

The ulcer from this time began to improve and rapidly heal, and was completely closed on the twelfth day. She now discontinued the iodide mixture, and in its place I ordered hydrg. c. cretae gr. iii. terdie, which she continued for about ten days, when she began to gain flesh and spirits, and considered herself well. I saw her no more until the present confinement trouble.

In conclusion, I wish to draw attention to one or two important facts in connection with this case.

Firstly, That the woman had contracted syphilis from her husband, through the medium of the child-bearing process; the disease appearing in the form of secondary manifestations.

Secondly. That she obtained a *cure* of that disease, so far as enjoying complete immunity from its outward effects for twelve months. From this it will be seen that I wish to impute to syphilis, as a blood disease, one of the links of the chain of causation, in the production of this double mammary affection; and this is evident for the following reasons:—

Firstly. Because the disease set in simultaneously in both breasts, and with very unusual severity, which we rarely see in uncomplicated cases. The converse application of this argument is the same as that used by Mr. Campbell De Morgan in his paper on cancer, read before the Pathological Society of London, by which he proves cancer *not* to be of necessity a blood disease.

Secondly. Because there was a return of the old nocturnal pains, headache, etc., shortly after the confinement and with the setting in of the mammary trouble. These two circumstances, it will be seen, form strong bases for the supposition of there being traces of the syphilitic poison still lurking in the system, and that the mild, specific course of treatment she had undergone twelve months previously had not eradicated, but merely rendered latent the disease for a time, awaiting, as it was, the opportunity of some slight exciting cause to make itself manifest again. This is what we now know to be the case. According to the late teachings of Mr. Jonathan Hutchinson, the system can be freed *completely* or *partially* from the poison of syphilis through the agency of the antidotal properties of mercury, the result depending upon the mode of administration and length of the course to which the patient is subjected. This is but one of the many examples we see of the peculiar and unexpected phases in which syphilis is capable of showing itself in an indirect manner.

Whether it is through the agency of a pathological cause or the revolutionary changes produced in the system by a physiological process, with excited functional activity in a part, is, in all probability, a matter of accident.

In the above case I could find no local cause whatever to account for the result, prior to the ordinary symptoms of deep seated inflammation, beyond the fact that the mammary glands were in the usual state of high functional activity, thus rendering them the most likely seats of election for any retrograde or morbid action to attack; favoured by a constitutional bias or state of lowered vitality induced by the presence of a specific poison, which we know to be resident in the system at the time. I remember well a case which struck me forcibly when in medical charge of Lisbon Royal Naval Hospital, during the winter of 1871, of a marine, admitted with symptoms of phthisis. His history told that he had been under treatment nine years previously at Haslar R. N. Hospital, Portsmouth, for secondary syphilis, contracted in China, where some of the most virulent forms of the disease occur. During the three or four weeks prior to his admission he had several attacks of hæmoptysis, which first originated from a slight cold, caught while on deck at sentry duty. He was a very powerfully built man, well nourished, and with no family history whatever of tuberculosis. His conduct papers showed, however, that he had been a very hard drinker from the time of his enlistment up to three years previous to his present illness, during which time he had been a total abstainer. He remained in hospital under treatment for about four weeks, when, finding he was getting stronger and better, due principally to change of air, he expressed a wish to be sent home to his friends. He went home, was surveyed and invalided as unfit for further service. After this he was, of course, lost sight of. The question here is, "Would so serious a pathological result as hæmoptysis have occurred from so slight a cause, had the system not been in some way under the influence of a specific blood poison?" *I think not.*

I remember another case of a fine young blue-jacket, who fell from aloft to the deck of a ship in Portsmouth Dockyard, sustaining a simple fracture of the left thigh. He was conveyed immediately to Haslar Hospital, where every possible care was was taken of him, notwithstanding which sloughing over the site of fracture set in and in a short time a large slough came away, converting the simple into a compound fracture of alarming magnitude. Large pieces of necrosed bone were cast off from time to time. At last, after two or three weeks, the wound began to granulate and everything was doing well, when, quite suddenly, he began to cough and spit blood, all the symptoms of phthisis following rapidly one upon the other until he died at the end of about four months illness. After death it was found that very imperfect union had taken place in the fracture.

On examining this man's papers, it was found that he had been under treatment for secondary syphilis, two and a half years previously at the Royal Naval Hospital, Plymouth.

There are many other cases of a similar nature I could call to memory, but I hope these will be sufficient for the present.

313 ST. ANTOINE STREET,
MONTREAL, April 16.

Congenital malformation of male urethra. External Urethrotomy. By G. STARK, M.D., Milwaukee.

On the 7th of April, 1874, I delivered Mrs. S., after a somewhat tedious labour, of a healthy male child. On visiting her on the following day, I was told that the infant had not made water since its birth; and on making an examination, I ascertained that the prepuce was attached to the glans penis in such a way, that the raphe was to the left of the median line. A depression marked the spot at which the meatus urinarius should have been, but no open-

ing existed. Having satisfied myself that there was no opening, and having secured the consent of the parents to an operation, I went home to procure the necessary instruments, and returned to the house.

Thinking that the malformation was probably membranous, as is usually the case, I tried for some time to overcome the occlusion, but was not successful in striking the urethra. As I was then satisfied that the malformation was not membranous, I determined to perform the operation of external urethrotomy. The child being placed upon the nurse's knees, with the thighs fixed upon the abdomen, and the feet firmly held, I made the skin tight with the finger and thumb of my left hand, and made an incision about an inch long in the line of the raphe, midway between the scrotum and the head of the penis. By pinching the skin over the dorsum of the penis, I made the wound gape, and then cut down upon the urethra, keeping exactly in the middle line, and then having bent the penis on the dorsum, in order that the urethra might be made as tense as possible, I placed the point of the knife upon the urethra and cut into it. I then passed a large-sized sewing needle, with its head first, forward, and found it was arrested fully half an inch from the depression which took the place of the meatus urinarius. I then cut down on the head of the needle from the depression, passed the needle through, and having threaded it, I returned it, leaving the thread as a guide. I then sent for a No. 1 gum elastic bougie, and cutting a piece about three and a half inches long, I passed it into the urethra past the external cut, but not into the bladder. Just before I passed it the child made water. I directed the bougie to be left in five or six hours, and I brought the external wound together by a suture. From this time the child did well, and continued to pass water by the artificial passage. The bougie was kept in for a few hours each day, for three or four days, after which it was discontinued. The wound is now quite healed, and the child doing well.

Correspondence.

THE CANADA LANCET AND MEDICAL ETHICS.

To the Editor of the Canada Medical and Surgical Journal:

SIR,—Will you do me, and many other medical men, the favour to publish the following letter which the *Canada Lancet* declined to insert. It explains itself.

This *Globe* like conduct on the part of the *Lancet* is a striking commentary on the arrogant demand that it should be the universal organ of Ontario medical men.

Respectfully,

ETHICS.

Toronto, 9th June, 1874.

To the Editor of the Canada Lancet.

SIR,—I desire to express my strong dissent to the position you have assumed with regard to the question of medical writers in the public press in connection with legislation upon medical matters, In my former letter I spoke only of the general principle involved. You have raised another question—"Did the communication which appeared in the public press during the recent Parliamentary action have any influence one way or the other?" On this point I have no hesitation in declaring my belief that had it not been for these public letters Baxter's bill would at least have met with far greater opposition, not only from the members of the Legislature, but from the medical men throughout the Province.

With respect to the general principle, I must again express my astonjshment at the doctrine that a medical man ought not to write, or if you prefer "figure," in the general press, even though that press is engaged in misrepresentation of his profession. Notwithstanding the

fact that the Legislative Assembly, elected by the public, has before it a measure affecting the welfare of the profession, and efforts are being earnestly made to defeat that measure, the medical man must not write in the daily press lest, forsooth, some censorious person will believe the writer is trying "to exalt his own personality." No matter that the *Globe*, the organ of the dominant political party, a widely circulated paper, and the principal source of information for a large number of the members of Parliament, commences a warfare against the Medical Bill and against the whole profession. It is true what is written in the *Globe* will be read by thousands who never see a medical journal; but never mind, they must not have an opportunity of reading both sides of the question lest the medical writer should thereby "exalt his own personality." I venture to use the strong words that this is a monstrous doctrine which does not obtain in relation to other professions, nor in the medical, in any part of the world.

But I wish to go further, and affirm my belief that when a question arises between the medical profession and the public, the secular press is the only channel in which a public discussion can be conducted. A medical journal is unsuited for that purpose, whether its circulation be large or limited, its arguments forcible or foolish. For a medical journal to arrogate to itself the exclusive right to promulgate the views of the profession upon matters pertaining to its public standing, and to "send marked copies to non-medical persons, allows one to intimate that it looks a little like an effort to exalt his own personality." Some would object to this outside circulation of medical literature and *anatomical plates* on other grounds.

It was unnecessary to send such information to the medical members of Parliament; for there were plenty of coals at Newcastle, while the other members were far more likely to be guided by what appeared in the morning papers which they invariably read, than by anything in a medical journal which might be merely glanced at.

If the foregoing be true, it follows that with respect to the recent legislation the public papers exerted mostly all the influence effected by the Fourth Estate. Had there not been a probability of accomplishing something the *Globe* would not have led the attack against the bill, and suppressed communications it found inconvenient to refute. And, moreover, it must be remembered that the hostility of the *Globe* had to be promptly met. The Committee—the Parliament—would hardly wait, perhaps a month, to see what some writer in *The Lancet* had to say in reply to statements circulated by the *Globe*.

In conclusion, I beg to say that I would prefer to have my communications returned than have them published in any way mutilated.

Yours, &c.,

ETHICS.

Toronto, May 18, 1874.

A case of Mania, with Atrophy of the Brain, &c. By J. Lockhart Clarke, M.D., F.R.S., etc., Physician to the Hospital for Diseases of the Nervous System.

Mrs. G., aged 70, was exceedingly emaciated and had for many years suffered severely from asthma for which a seton had been inserted fifteen years back in the left arm. The paroxysms of asthma gradually diminished in strength and frequency, and in the last two or three years had almost disappeared, so that the seton was removed. Some months after the removal of the seton, she fell down without losing consciousness, but was unable to get up or to speak, having the appearance of having had an apoplectic attack. After this attack she frequently complained of giddiness and loss of memory. Some months later she again became unwell, she became weak and thin, and was somewhat sickly, but suffered no headache whatever. She recovered after getting out of bed, and was quite unable to clean herself, but she retained consciousness. She was quite deaf, and continued to improve for a few months, when she suddenly became

extremely excited, sitting up in bed and throwing about her arms or wringing her hands in apparent mental distress or despair, although, as I ascertained from her family, she had no actual grounds for any feelings of the kind. When I asked her what she wanted, she replied that she wished to die, that she had been wicked, and frequently she concluded by saying that she did not know what she wanted. On every other subject she was perfectly rational. She scarcely ever slept for long together without opium. This state of excitement lasted about two months, and was succeeded by greater weakness, by further loss of memory, and by giddiness. About six months later, another period of mental excitement commenced. During the whole day and night, except when she happened to fall asleep for a short time, she would try to get out of bed and wander about the house, or would sit up in bed throwing about her arms and turning up her eyes as if in despair, and crying frequently aloud—"Oh dear, what shall I do?" She was wholly unable, however, to give any definite or intelligible account of her mental suffering. Morphia and chloroform procured her some sleep at night. At the end of about three weeks, she became impressed with the notion that the house was on fire, and would frequently get out of bed and attempt to go downstairs for the purpose of escaping from the supposed danger; but, when prevented from so doing, she would sit on the side of her bed and repeat, almost uninterruptedly, from morning till night, the following statement: "It is as I tell you; it's fire; it is as I say." On all other points she was quite rational, and knew every one that approached her. This state of excitement was subdued for a time by the inhalation of chloroform, which was used every night, but without inducing complete unconsciousness. About half an hour or an hour after the inhalation, she would fall soundly asleep until about five in the morning, when the same excitement returned, and she would then pass the day in repeating the same expressions. This state continued for about a month, during which time she frequently refused

to take food declaring that she was unable to swallow; so that she was reduced to a state of great emaciation. Then she became quiet and comparatively calm, but still very uneasy and distressed in mind. For the first time, she complained of pain, all over her body. Her tongue was parched and dark brown; her pulse rapid and extremely feeble. After remaining for about a week in this condition, she gradually and quietly sank.

Post Mortem Examination Forty Hours after Death.—April 15th. Weather not warm. Along each side of the falx cerebri, the membranes were closely adherent to each other, and firmly attached to the side of the falx and to the skull a little beyond it. The entire brain was very small and particularly globular in shape. The veins on its surface were full of dark-coloured blood, and several large clots were found in the longitudinal sinus. Beneath the arachnoid, a quantity of fluid was found in the sulci between the convolutions, which in some places were extremely atrophied. At the vertex, over a somewhat circular area of about an inch and a half in diameter, on each side of the longitudinal fissure, the convolutions were so atrophied, that the spaces between them were in some instances three quarters of an inch in breadth. It was over this space that the membranes were adherent to each other, as well as to the falx and skull. The quantity of fluid which run out from beneath the arachnoid was about two ounces and a half. The substance of the hemispheres was not at all soft. When sliced, the grey portion presented its normal colour and consistence, and was not unusually vascular. The lateral ventricle contained a small quantity of fluid. The right optic thalamus was decidedly smaller than the left, and somewhat soft. The corpus striatum on the left side was decidedly small, soft, and altered in shape, being broad, as it were, upon itself. The pons and medulla oblongata were very small.—*British Medical Journal.*

The relation between Arterial Tension and Albuminuria. By F. A. MAHOMED, ESQ., Resident Medical Officer to the London Fever Hospital.

I do not desire to enter into a controversy with Dr. Johnson on the much vexed question of "capillary power"; for, although he naturally adheres to his theory of the stop-cock action of the arterioles, still I am not singular in believing in the existence of such a power; and Dr. Johnson must surely allow that the transudation of hæmoglobine, which is associated with high arterial tension, but absent in venous congestion, together with other facts brought forward in my paper and previous article, are strong proofs of its presence. They at least prove the occurrence of high pressure in the arterial capillaries; and he does not attempt to explain them otherwise, or to contradict them.

Dr Johnson, however, not only mistakes my theory of the pathology of Bright's disease, but he lays down a rule and a challenge, to which I gladly respond. He says that "a true theory must be consistent with all ascertained facts"; and he then instances the high arterial pressure existing in cases of contracted kidney, and the small amount of albumen discoverable in the urine, as a condition that cannot be explained by my theory. Not only have I found my views to be "consistent with all ascertained facts," but I have solved by their assistance many problems which, when regarded from Dr. Johnson's point of view, are difficult of comprehension; such for instance, as intermittent albuminuria, rupture of capillaries and appearance of blood in the urine, the immediate relief afforded by purgatives, the production of dropsy, and the transudation of hæmoglobine.

With regard to the slight degree of albuminuria, accompanying contracted kidney, it may be explained as follows. The changes which precede and accompany cirrhosis of the kidney are peculiarly insidious in their commencement, gradual in their development, and prolonged in their existence. There is, therefore, at first a slight but gradually increasing want of relation between blood and tissue; this

produces a correspondingly slight, but also gradually increasing, condition of high tension in the arterial system. This increase of tension is too slight and too gradual to produce an albuminuria ; but it nevertheless, if allowed to continue and to increase, produces a thickening of the arterial walls, a hypertrophy of their muscular coats, and a hypertrophy of the heart. I believe it is this condition (when accompanied by a particular excretion by the skin or bowels, affording relief to the kidneys) that give rise to those changes described by Sir William Gull and Dr. Sutton as "arterio-capillary fibrosis," and stated by them occasionally to exist without marked change in the structure of the kidney. When at last this very gradual increase of pressure, which may require years for its development, reaches that degree which, in an acute case with healthy vessels, would give rise to a copious transudation of albumen, the walls of the capillaries and arterioles are so thickened that it is far more difficult to force through the albumen. For the same reason, the hæmoglobine is absent from the urine of these patients, in whom the high arterial tension is invariably well marked, but whose urine may be free from albumen. In such cases, slight constipation or chill (by arrested excretion) will produce that temporary existence or increase of albuminuria which is so characteristic of cirrhosis ; or a more severe constipation or chill will immediately give rise to the symptoms of the acute form of Bright's disease.

Again, Dr. Johnson states that he has been unable to discover any hypertrophy in the muscular walls of the arterioles of the lung, produced by the existence of high pressure from the passive engorgement of these organs : but, on the other hand, I have constantly seen thickening and endarteritis of the pulmonary vessels demonstrated by Dr. Moxon as the result of "strain" from high pressure in these vessels, due to this cause.

Dr. Johnson considers a similar "unity of action" to exist between the heart and muscular arterioles, as between the detrusor urinæ and the sphincter vesicæ ; between the

muscular walls of the rectum and the sphincter ani. I, however, am unable to perceive the resemblance; for while, in the former case, according to Dr. Johnson, the heart and arteries are simultaneously contracting and acting in opposition, in the two latter instances, while the expulsors contract, the sphincters are relaxed, and *vice versa.*

Finally, Dr. Johnson has entirely misapprehended my theory of the production of the pathological changes; he has omitted the most important step in the process. Given the predisposing condition of blood-poison and high tension, from capillary obstruction, I do not believe that any acute kidney-change would be produced without the occurrence of another most important condition—namely, arrested action of one of the excretory organs, either bowels or skin. This throws increased work on (and produces, therefore, congestion of) the kidney, and subsequent cell-proliferation —a somewhat different sequence of events from that described by Dr. Johnson as entailed by my theory.—*British Medical Journal.*

Fissure of the Anus in a child one year and a half old. By J. Hyde Houghton, Surgeon to the Guest Hospital, Dudley.

On February 16th, 1874, I saw Nellie D., now one year and three-quarters old, a delicate small child, who had been dry-nursed since she was one month old. She had been inclined to be costive since infancy, but in May last the costiveness became aggravated, at which time I was consulted. The various ordinary means of regulating the bowels were had recourse to—aperients, diet, and enemata —but up to November 1873 no essential relief to the symptoms was afforded, and for some time past she never had a motion without aperients or enemata. She frequently went two or three days without relief to the bowels, and each act of defæcation was attended by violent pain, screaming, and crying. She would do all in her power to prevent

the action of the bowels, writhing about and screwing her knees together. She was in great pain for an hour after each motion, and the discharges were costive and sometimes streaked with blood and mucus. In November, I attempted to examine the anus, but, from her restlessness, it was impossible to get a fair view of the part, though I fancied I could see a small crack on the verge. On November 27th, I put her under chloroform and discovered a small fissure, and through this I at once made a superficial incision. The relief was immediate and permanent. From the day of the operation, all the symptoms entirely vanished, and her bowels have acted regularly and easily ever since. It need hardly be added that her health has greatly improved since the operation. I put this case on record, both on account of its rarity, and, as I hope, of its importance. I am not aware of any similar recorded case, and no author that I know of alludes to fissure in children. Bryant describes it as a disease of adult life, and Curling as a disease of middle life; whilst Erichsen, Hilton, and Quain make no allusion to it in childhood. I am induced to hope that the case will prove important in reference to the treatment of constipation in children. Every one who has seen much of the diseases of children, must be aware of the difficulty which exists in the treatment of constipation, and have been baffled in dealing with it. It is not my intention to enter upon that subject, the object of this short communication being simply to draw attention to the existence of one cause hitherto overlooked, in the hope that relief may be afforded to, at least, a few of these troublesome and painful cases.

P.S. I met my little patient with its mother a few days ago and was assured that there had not been any difficulty with the bowels since the operation had been performed.—

Remarkable Case of Heart Disease: Septum Ovale open, and Inferior Vena Cava opening into Left Auricle; no Cyanosis. By ARTHUR E. T. LONGHURST, M.D., 4th Batt., 60th Rifles.

The subject of this very singular case was a man with a well built frame, good muscular development, and 5 ft. 4 in. in height. At the age of nineteen he enlisted into the 60th Rifles, having been for seven years previously in the Royal Navy, and was in possession of the Baltic medal for services on Board H.M., frigate *Nile* during the Crimean war. He embarked with his battalion for Canada in June, 1861; and without being habitually intemperate, he kept up his habits of sea life, taking stimulants pretty freely. His father died young, cause of death unknown; but he said his family were healthy, and his mother, who was with him constantly for some time before his death, was certainly a very healthy-looking old woman. He enjoyed good health in Canada being always considered a strong muscular little man, ready for anything, and was for three summers employed as one of a boats's crew on the river St. Lawrence and Lake Ontario in the service of the General Officer commanding. He had a mild attack of syphilis in 1868, not treated by mercury, and not followed by secondaries; and returned to England with his battalion in the summer of 1869, in good health, going through field days at Aldershot and the autumn manœuvres for three seasons without inconvenience. Was tapped for hydrocele in 1872, and in December of that year was in hospital for gout in the right foot, being at times dyspeptic, but never had acute rheumatism.

He came to hospital on October 16th, 1873, complaining of extreme weakness amounting at times to syncope. He looked very ill, was deadly pale, respiration rapid and laboured, heart's action extremely quick and extended, with regurgitation into the veins at the base of the neck; legs œdematous. Auscultation revealed pulmonic congestion, especially of the left side, and extensive valvular disease of the heart, the exact nature of which could not be at once determined

owing to the very rapid action—144 a minute, with weak and irregular rhythm. Having for some months been employed as clerk in the battalion orderly room, he had not been called upon to undergo much exertion and fatigue, but said that for the last few months he had been subject occasionally to dyspnœa, and that since arrival at Portland, in June, the dyspnœa had increased with increasing debility, making it difficult for him to ascend the hill to the citadel, a height of nearly 500 ft. from the sea level. He was ordered a purgative, counter-irritation to back of the left lung, diaphoretic and digitalis. The symptoms were relieved; and on the 18th, two days later, a systolic bruit was heard just below the nipple, carried downwards, and very extensive cardiac hypertrophy was diagnosed, dulness extending towards the xiphoid cartilage and epigastrium, with giddiness and a confused, uncomfortable feeling in the head. Urine acid, depositing lithates, and slightly albuminous.

Oct. 24th. Pulse irregular, three rapid beats and then a pause; respiration 24, easy; no cough nor expectoration, but some gouty pain in the knee.

25th.—Had a sudden attack of extreme dyspnœa, passing into a state resembling the clonic stage of an epileptic fit, but ending in coldness and exhaustion; and was considered due to pulmonary embolism. Ordered brandy and digitalis, under which the symptoms subsided to some extent; and on the 26th the pulse intermitted less frequently.

28th.—Sounds of the heart distinct and without bruit; impulse forcible, and widely extended upwards and to the right.

A fortnight later the pulse was down to 100; the sounds of the heart were clear and without bruit, but intermitting, three rapid beats and then a pause in length of two beats; the pulse at the wrist not corresponding to the heart in number of beats.

At the end of a month the rhythm was still irregular, pulse 132, respiration 32, the dropsy increasing. Digitalis continued. By Dec. 6th the frequency of the pulse fell to

74, but the intermission continued about every third beat. The digitalis was omitted, and the pulse again rose from 100 to 144.

On Dec. 15th the sounds of the heart were rather muffled and running into each other, but there was no bruit. On the 20th the sounds were quite regular, but there was a roughness with the diastole, and the pulse was 140.

From this date the general symptoms advanced rapidly, especially the dropsy, necessitating paracentesis abdominis on Jan. 4th, 1874, when two gallons of clear yellow serum were drawn off, with much temporary relief: but the abdomen soon refilled, with an accession of all the symptoms. No marked change, however, occurred in the heart sounds, which continued regular, quick, and feeble, without bruit. The operation of paracentesis was three times repeated with relief, but the patient grew weaker, and sank on Feb. 9th, four months from date of admission, his age being thirty-six.

Autopsy, twelve hours after death.—Body of a marked icteric hue, not at all blue or venous in appearance; upper half wasted, lower half œdematous. Abdomen much and uniformly distended, but without enlarged veins.—Thorax: Muscular coverings wasted; cartilages of ribs ossified. Right lung forced upwards, much congested, and intimately attached to the side by old adhesions. Left lung in a similar condition, but atrophied, and occupying only the mere apex of the thoracic cavity; the remainder of this space being occupied by an immensely hypertrophied heart, enlarged from above downwards, the shape of a distended stomach with a slight constriction across the left third, weighing, with adherent pericardium, attached vessels, and blood-clots, 2 lb. 9½oz., and clear of these 2lb. 1½oz. The right auricle, being laid open, was found extremely dilated and full of dark jelly-like clots. The superior vena cava opened into the appendix, and was also dilated; the foramen ovale was only partially closed, there being three crescentic openings, the size of a pea, in the lower border of the sep-

tum, each having a raised and well-defined margin, giving to the septum at this point a cribriform appearance. The opening of the inferior vena cava was absent; the coronary vein was extremely enlarged; the Eustachian and Thebesian valves were well marked, and the diameter of the auriculo-ventricular opening was 1·67 in.; the lappets of the valves were thickened, puckered, and imperfect. The left auricle was dilated, full of jelly-like clots, and having in addition to its ordinary opening, that of the inferior vena cava, and at a point posteriorly and inferiorly and on the same plane, but posterior to the mitral orifice; the direction of this opening being clearly towards the cribriform septum ovale whilst the pulmonary veins opened into the auricle superiorly, and their direction was towards the mitral orifice, the diameter of which was 1·45 in., and its valves were normal. The right ventricle was full of the same jelly-like clots, but did not offer any point for special notice; diameter of pulmonary artery, 1·18 in. The left ventricle formed the greater part of the entire weight of the heart; its apex being prolonged through a wide mouth into a large sacculated aneurism, the size of an ordinary orange, which was filled with layers of laminated fibrine; the external ones honeycombed and dense, the interior ones lying next the cavity of the ventricle being softer masses and without determinate form and character. The ventricular walls were slightly thickened, but prolonged for a short distance into the aneurismal walls, the limiting membrane of the main dilatation being composed of the adherent and thickened pericardium, on the outer edge of which was a bony plate or spicula, the results of a tissue degeneration. The aorta was thin and flabby; no atheroma observed. Diameter of aortic opening, 1·03 in. Valves healthy. No fibrinous clots in the heart or great vessels.—Abdomen: Liver rounded and contracted on its surface; capsule densely thickened; weight 2 lb. 7½ oz.; tissue presenting an excellent example of Cirrhosis Kidneys small and contracted; two cysts in the cortical substance of the

left, lined by a distinct membrane, and containing a serous looking fluid, with a depressed, yellow, cheesy-looking spot, found on section to extend inwards to the base of the pyramid, its exact nature being uncertain, but like the remains of the wall of a cyst such as that noted on the surface. Some serum and flaky lymph in the cavity of the peritoneum. Intestines distended and inflamed, and some of the intestinal convolutions glued together by recent lymph.

Remarks.—A consideration of the following points in this very remarkable and apparently unique case will, I think, be full of interest, and perhaps enable us the better to understand it.

1. The changes in the anatomy of the heart: (*a*) congenital; (*b*) structural, as the result of disease, or of both causes combined.

2. The changes in the adult circulation.

3. Perfect health and vigour up to thirty-five years of age.

4. The absence of cyanosis.

5. Absence of physical signs of congenital change.

6. Their comparative significance and variableness during the last few months of life, whilst under observation.

7. The determining cause of the aneurism.

1. The congenital changes, then, were as follows:—(1) Superior vena cava opening into the appendix of the right auricle, which, together with the auricle itself, was extremely dilated. (2) Absence of the inferior vena cava from the right auricle. (3) A cribriform condition of the septum ovale. (4) The extremely large size of the coronary vein. (5) The inferior vena cava opening into the left auricle, in the position and manner detailed.

The disease changes were:—(I) Adherent pericardium. (2) Dilatation of cavities of the heart. (3) Thickened and puckered state of right auriculo-ventricular valve. (4) Thickening of left ventricular walls, which were prolonged for a short distance into (5) a large aneurism of the ventricle. (6) Increase in weight of heart, to 2 lb. 1½ oz.

2. The changes from the ordinary course of the adult cir-

culation were as follows:—The blood of the lower half of the body brought by the inferior vena cava, instead of passing into the right auricle direct, was carried first into the left, thence probably through the cribriform septum ovale into the right auricle, establishing thus a double current in the left auricle, composed of (*a*) venous blood, brought by the inferior cava for passage through the cribriform septum ovale into the right auricle, there to mingle with the stream from the superior cava passing into the right ventricle, thence into the lungs; and (*b*) arterial blood brought from the lungs by the pulmonary veins for passage into the left ventricle, thence to the aorta.

A consideration, then, of the above two conditions—viz., the changes in the anatomy of the heart, and the changes in the course of the circulation—may help us; but for a full and clear explanation of the case we must revert to the conditions of fœtal life.

It is, I think, evident that a communication between the two auricles through the septum ovale was a necessary consequence of the inferior cava opening into the left, otherwise the two currents of venous and arterial blood must have mixed freely. Again, the points of openings of the vessels and their directions, the alteration in the size of the chambers, &c., would materially influence the currents—e. g., the site of opening of the inferior cava and its direction towards the cribriform septum, and the openings of the pulmonary veins in a direction towards the mitral orifice, might enable the blood currents in the left auricle to pass each other, without very greatly commingling: there must however have been some slight admixture of venous and arterial blood in the left auricle, although apparently very small, from the absence of cyanosis; for granting that the blood currents from the inferior cava passed into the right auricle through the septum ovale, yet, on the contraction of the right auricle, some venous blood must have regurgitated through the opening into the left auricle, although the major part of it may have gone into the ventricle in the ordinary course.

I have said, however, that we must look to the conditions of fœtal life for a complete understanding of the case, and those conditions will, I think, render it pretty clear; for we know that during the very early development of the fœtal heart there is but one auricle, which subsequently becomes divided by the development of a septum; and that though for a time the inferior vena cava does open direct into the left auricle, yet that with increasing growth and development the septum rises up on the left side of the entrance of the vein, and thus causes it, together with the superior vena cava,, to open into the right auricle. We see therefore, that the peculiarity in the present instance is really a remnant of very early fœtal life, yet that during that stage of fœtal development the course of the blood was from the right to left auricle; whilst in the case under consideration, in adult life, the course of the stream was reversed. That such a condition should have continued into adult life, and that the subject should have enjoyed perfect health and strength, is not the less remarkable and more than that the course of the circulation, thus altered should have flowed so evenly.

With regard to the conditions Nos. 3 and 4 noted, and referring to the health and constitutional vigour enjoyed by the subject, and the absence of cyanosis, it is, I believe generally considered that the imperfect development which results in a direct communication between the two sides of the heart gives rise either to palpitation, dyspnœa, and an enfeebled existence, or to very early death; yet the subject in the present case was unusually strong and muscular, as stated, being known amongst his comrades as the little lion of the battalion, of free habit of life, and always ready for anything; and that he should have exhibited no sign of cyanosis is equally remarkable, unless the fact of the inferior cava opening into the left auricle in a line with the apertures in the septum, and so directing the current of the blood, may be sufficient to explain its absence; whilst we cannot here fail to be struck with the infinite power, wisdom,

and skill by which Nature adapts herself to circumstances: or, in other words, if, indeed, we may venture to consider her as capable of error. How easily, having got into a difficulty, she rights herself; for surely, as above suggested, having put the inferior cava into the left auricle, she then left the septum ovale open, intending thereby, or in that way, to complete her form of creation, and to fit the creature for the work of life.

A consideration of points 5 and 6, as to absence of physical signs of patent septum ovale, is also surprising, a loud superficial murmur being usually heard over the site of the communication: but in the various examinations through which this subject has passed from time to time during a period of fifteen years' service nothing abnormal was ever detected, whilst its absence seems to prove that the passage of the blood through the cribriform septum into the right auricle was tolerably smooth and even, and the variableness and comparative insignificance of the physical signs of disease whilst under observation during the last few months of life was singular enough.

The physical signs on admission into hospital indicated [illegible] condition of the tricuspid valves allowing of regurgitation, whilst percussion declared the hypertrophy, and both these conditions were realized in the post-mortem examination. As disease progressed the pulse became [illegible] the beats of the heart [illegible] whilst the tricuspid [illegible] and the [illegible] embolism at [illegible] altered [illegible]

wall of the aneurism; or could it be at all of a congenital nature, originating partly in deficiency, more or less, of the muscular layers at the apex, or to changes in the force or direction of the blood-currents, consequent on the patent foramen ovale and other congenital irregularities?

The microscopal examination of the structure of the left ventricle walls by Dr. Welch, Assistant Professor of Pathology at Netley, and who, in conjunction with my valued friend and brother medical officer in the battalion, Dr. Harman, has so kindly aided my attempts towards a clear report of this very interesting and unusual case, failed to detect syphilitic or other precise tissue degeneration. Hence Dr. Welch is disposed to attribute the aneurism to some congenital deficiency in the muscular layers at the apex of the ventricle, where they are always the thinnest; but I incline to the belief that, with any congenital defect there, adult life would not have been reached, or if reached, the subject of such defect would not have been what he was in the present instance.

Consequently, though the microscope did fail to detect tissue degeneration, as there was an ossified state of the ribs, a bony plate on the pericardium, a diseased tricuspid valve, cirrhosis of liver, and contracted and diseased kidneys, showing that tissue change had for some time been going on in the ribs and other viscera of a man who had been addicted to the free use of spirits for years—itself always so pregnant a source of tissue degeneration,—both Dr. Harman and myself are disposed to attribute the aneurism, to a strain in rowing, or some other violent exertion, by which a weak point in the ventricle was established, and which eventually yielded to subsequent pressure and tissue degeneration, and that at most the congenital condition of the ventricle and the anatomical changes in the heart were only secondary causes in operation.—*Lancet.*

Verne Citadel, Portland.

Poisoning from Corrosive Sublimate Generated in the Mouth from Amalgam Plugs in the Teeth.

Having been invited by an eminent gentleman of the medieal profession to attend a convention of the State Medical Society to submit to its consideration a matter of vital importance to the human family, and being unable to comply with the invitation, I have written this article to lay the matter before the medical profession and ask its co-operation.

The matter which I wished to bring to the notice of the profession is the poisoning of thousands of people all over the world, from corrosive sublimate generated in the mouth from amalgam plugs in the teeth. Neither Asiatic cholera, nor smallpox, nor any malarious disease, is doing half the mischief in the world that is being done by this poisoning. Every medical man of any considerable practice has undoubtedly had numerous cases of it, but never knew what it was. The symptoms are so numerous and varied in different cases that it would be impossible to give them all in this short article, but I will say that a person poisoned in this way is liable to be treated for dyspepsia, neuralgia, paralysis, consumption, and numerous throat diseases. The patient gradually wastes away as if going into a decline, and no medicine will afford any relief. In many cases the difficulty steals on so gently as not to excite the least alarm, and continues very gradually for a number of years till the patient becomes a total wreck; while in others the attack comes on violently, and the friends and the attending physician think the patient is dying; but he will again rally, and again be prostrated.

There is such a resemblance in the symptoms to nearly all the diseases to which human flesh is heir that the physician is led to treat the patient for some disease which seems to be a very clear case, but his patient gets worse. In more than twenty cases that I have had, nearly all had been pronounced by some physician as having consumption. In nearly all the cases there are at times a very bad

cough, eyes sunken, and haggard expression and deep blue or dark color under the eyes, invariably a metallic taste in the mouth, water flowing from the mouth in the night while asleep so as to wet the pillow, and in most cases extreme prostration.

I have not time now to detail the manner in which the corrosive sublimate is formed in the mouth, further than to say that the quicksilver in the plugs is driven off by the heat of the mouth in very minute particles, and, combining with the chlorine in the fluids of the mouth, or any saline substance, such as our food, passes into the stomach, and produces slow poisoning. If the State Medical Society will appoint a committee to visit this place, I will show them several cases that will place the matter beyond controversy.

There are some twelve thousand dentists in the United States doing a wholesale business at this poisoning, and I ask the co-operation of the State Medical Society, as guardians of the public health, to assist in getting an act of Congress passed making it a penitentiary offence to place any poisonous substance in teeth that will injure the people.—*J. Payne, D. D. S. in Chicago Medical Journal.*

Practical Notes on Cutaneous Subjects. By TILBURY FOX, M.D., Lond., F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital.

SCABIES IN PRIVATE PRACTICE.

It is important to remark that scabies often differs very much in aspect, according as it occurs in hospital or in private practice. Amongst the poor, and especially the uncleanly, the burrowings of the acari in the skin are attended with the formation of papules, vesicles, pustules, wheals, &c., in abundance. But amongst the well-to-do, and particularly those who observe great cleanliness, the ordinary results of the irritation produced by the acari may be almost, if not entirely absent. So that if a student were to be guided by the ordinary descriptions given in books of

scabies, he would certainly not be able to diagnose the scabies present. The disease would not answer in description to papular, pustular, or vesicular scabies, and yet true scabies might be present. I have seen several cases lately in which patients complained of itching intensified at night, in different parts of the body, and in whose skin nothing could be detected but a few cuniculi about the hands, or the penis, and an apology for a vesicle here and there. I have seen a multitude of acarian furrows about the hands and other parts in a case of scabies, and nothing else. In other cases I have observed just a few very fine, delicate, pale, flesh-coloured papules, the result of irritation set up by acari present in the skin, and nothing more; and those, which were lichenous papules, were difficult to make out. In all cases in which a patient complains of itching aggravated at night, even though there be none of the ordinary evidences of scabies present, yet a diligent and active search for cuniculi should be made about the hands and penis. I have known patients treated with powerful internal remedies for "prurigo," lichen, and the like for weeks, whilst scabies, which existed, was wholly unsuspected because there were no papules and pustules present. Papules, pustules, and vesicles are indeed accidental accompaniments of scabies, which should be looked upon as consisting essentially of the acari in their furrows (cuniculi)—i.e., the real scabies, and the phenomena of irritation (papules, pustules, &c.) superadded, which, under certain circumstances, may be entirely absent.

SCABIES OF THE PENIS.

Two or three cases of scabies limited to the penis have recently come under my notice. In all of the cases careful search detected cuniculi. In two, suppurating buboes were produced by the irritation, and the disease was thought to be syphilitic. The diagnosis was rendered easy by the absence of any decided induration about the scabies spots, their vesico-pustular origin, pruritus intensified at night, the presence of cuniculi, and the absence of any concomitant evidence of syphilis.—*Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1874.

CANADIAN MEDICAL ASSOCIATION.

At the meeting of this Association held at Halifax, Nova Scotia in September last, it was unanimously determined that the annual gathering this year should take place at Niagara Falls, on Wednesday 5th August, 1874. We understand that recently Dr. Canniff of Toronto, chairman of the Committee of Reception, with Dr. Mullen of Hamilton, proceeded to the Falls and made arrangments with the well known proprietors of the Clifton House, Messrs. George M. Colburn & John H. McOmber, who, with accustomed liberality have manifested their interest in the success of the meeting by offering to entertain the members of the Association, and their wives and daughters at reduced rates. This generosity is the more noteworthy when it is considered that the month of August is generally selected by Tourists to visit the renowned scenery of Niagara Falls and when the Hotels are generally well filled with guests. Every exertion will be put forth by the Committee to entertain their guests and to acquaint the members of the Association of the reception they may expect.

We hope there will be a large gathering as subjects of importance to the profession throughout the Dominion, will be submitted to the meeting, and which, if calmly and judiciously entered upon will do much to allay the feeling of irritation which generally prevails, especially in Ontario, in view of recent legislation. The Medical Association should be more than merely a social gathering,

although we should regret to see the apple of discord thrown in amongst its members. Sooner than that should occur it would be more preferable to drop medical politics altogether.

These meetings of the various sections of our country generally bring together representative men, and afford an excellent opportunity for united action as well as a free expression of the wants and requirements of each division of the Dominion. We hope to see a full meeting and an earnest desire on the part of all who attend to work harmoniously, as it will be for the benefit of the profession as a body. Medical legislation has hitherto been attended with doubtful results. In Ontario the profession have certainly a Medical Act which is in many respects highly beneficial; we should gladly see an attempt made to legislate for the Dominion, so that the anomaly should exist no longer of Registered Practitioners in one section of the country being denied the right of practising their art in any other section, without being forced to submit to further tests of proficiency by examination, and of paying high fees for the privilege.

There should exist among us as a professsion an honorable rivalry to advance the tone and character of our calling; rivalry in elevating the quality and method of teaching in our schools. A high standard of preliminary education is exacted both in Ontario and Quebec, and is beginning already to show fruit in the sending forth of a better class of general practitioners. We may hope for the dawn of that period when our profession will assume that position in the scientific world which it lacks at the present day. It may be argued, and with some truth that the Canadian Medical Association was established purely and only for the purpose of bringing together members of the Profession from all parts of the Dominion purposely to discuss subjects connected with the scientific advancement of our profession, and that medical politics should not be broached. This is perhaps in the main true, but in the

present crude state of matters, it is greatly to be desired that a uniform system of examination should be secured. The question of a central examining board is one which has long engaged the attention of earnest thinkers, and it could, we believe, be carried, or at least an expression of opinion emanating from such a body as the Canadian Medical Association in favor of such a board, would go far to aid in its ultimately becoming the law of the land.

We hope and trust the subject will not be forgotten, or allowed to drop—and above all if it is discussed, we trust it will be taken up in all earnestness of purpose, but with temperance, prudence and brotherly love.

TRIENNIAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS, L.C.

The Triennial Meeting of the "College of Physicians and Surgeons of Lower Canada," was held at the town of Sherbrooke, P.Q., on Wednesday, the 8th July inst.

The following gentlemen were present:—Drs. Scott, Howard, Peltier, Rottot, Robillard, Millette, F. W. Campbell, Hingston, Brigham, Gibson, Duchesneau, Russell, Rinfret, Tessier, Belleau, Marmette, Tetu, Pelletier, de St. Georges, Landry, Gilbert, Hamilton, Worthington and G. E. Fenwick. The attendance was small when it is considered that the profession is represented by upwards of 150 members of the College—each of whom are, or should be, interested in the success of the institution, and in the election of reliable men to carry on the important affairs of the Corporation.

Precisely at 10 o'clock A.M., the President, Dr. W. E. Scott, took the chair, and called the meeting to order. The Secretary for the District of Montreal, Dr. Rottot, read the minutes of the last Triennial meeting, which were duly approved.

The President then gave a synopsis of the proceedings of the College during the past three years. After which

the following gentlemen being licentiates of over four years, were proposed and seconded in due form, and the ballot having passed, were declared elected members of the College, viz.: Drs. John Reddy, W. Gardner, E. H. Trenholme, R. A. Kennedy, M. Millette, P. de St. Georges, F. X. Perrault, and D. T. Scholfield.

Two of the above named gentlemen being present, took their seats as members of the College.

Twenty-seven proxies were handed in, making the total number of votes represented, fifty in all. The following gentlemen were appointed a committee to examine the proxies, viz.: Drs. Marmette, Rinfret, Gibson, and the Secretary.

On motion, N. Mercer, Esq., of Montreal, representing the Pharmaceutical Association of the Province of Quebec, was invited to take a seat at this board.

Mr. Mercer submitted to the College the draft of a Bill to amend "the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, and to regulate the sale of Poisons," with a view of obtaining the concurrence of this College to the terms of the Bill.

A BILL

To Amend the Act of Incorporation of the PHARMACEUTICAL ASSOCIATION OF THE PROVINCE OF QUEBEC, *and to Regulate the Sale of Poisons.*

WHEREAS it is expedient for the safety of the public that all persons engaged in the sale of Drugs and Poisons, and the dispensing of Medicines, should possess a competent, practical knowledge of Chemistry, and other branches of useful knowledge; and whereas certain persons desirous of advancing Chemistry and Pharmacy, and of promoting a uniform system of educating those who should practice the same, formed themselves into a Society called the "Pharmaceutical Association of the Province of Quebec," which said Society was in the year of our Lord one thousand eight hundred and seventy incorporated by Her Majesty, by and with the advice of the Legislature of Quebec, whereby it was provided that the said Corporation should consist of persons to be called "Members," such persons being Chemists and Druggists who were and had been established in business on their own account prior to the passing of the Act of Incorporation, or who should have been examined in such manner and on such subjects as the Council of the said Corporation should deem proper, or should have been certified to be duly qualified for admission as Members; and also another class of persons called "Associates," who were clerks or apprentices of Chemists and Drug-

gists, who at the date of the passing of the Act of Incorporation, were Associates of the Montreal Chemists' Association, all Associates admitted after the passing of the Act, having first to be duly examined as to their skill and knowledge in such manner as the Council of the said Corporation should deem proper; and whereas, for the purposes of extending the benefits which have already resulted from the said Charter of Incorporation, it is desirable that additional powers be granted for regulating the qualifications of persons who may carry on the business of Pharmaceutical Chemists, or Chemists and Druggists, and for the regulation of the sale of Poisons, and for other purposes connected with Pharmacy, be it enacted by Her Majesty, by and with the advice and consent of the Legislature of Quebec :—

1. That the said Charter of Incorporation granted to the said Associationt and known as "The Pharmaceutical Association Act of 1870," save and except such part or parts thereof as are hereby altered, varied or repealed, shall be, and the same are hereby confirmed and declared to be, in full force and virtue, and shall be as good and effectual, to all intents and purposes, as if this Act had not been passed.

2. The Council of the said Pharmaceutical Association shall be, and the same are hereby authorized and empowered to alter and amend the By-laws of the said Association made and established under or in pursuance of the said Charter of Incorporation, and to make or establish such new or additional By-laws as they shall deem proper or necessary for the purposes contemplated by the said Charter or by this Act.

3. That the name of the Association shall be changed from that of the "Pharmaceutical Association of the Province of Quebec," to that of the "College of Pharmacy of the Province of Quebec."

4. That all persons in business on their own account as Dispensing Chemists or Apothecaries prior to the passing of this Act, or who have acted as Superintendents of a Chemist and Druggist's business for not less than 7 years, and being of full age, shall, upon producing evidence of the facts, be entitled to be placed upon the Register, and to be certified as "Licentiates in Pharmacy."

5. That all clerks who have been more than three years in the trade shall, after producing satisfactory evidence of the fact, and after undergoing a modified examination, be entitled to be placed on the Register, as "Certified Clerks."

6. That all clerks and apprentices who have not been three years in the trade shall go through the required curriculum of study and pass the examinations before they can be registered as "Certified Clerks."

7. That every youth, before he is taken as apprentice by a Licentiate of Pharmacy, shall produce satisfactory evidence of a good moral character, and pass a preliminary examination in the English, French and Latin languages, and Arithmetic, after which he shall be registered as a "Certified Apprentice."

8. That in addition to the preliminary examination for apprentices, there shall be two other examinations. The first to be called the "Minor Examination," shall be passed by all Certified Apprentices before they can take the position and become qualified as "Certified Clerks." The candidate shall be

examined in the Translation and Dispensing of Prescriptions, Pharmacy, Chemistry, especially the Chemistry of Poisons, Posology, and Materia Medica. After passing this examination the candidate shall be registered as a "Certified Clerk."

9. The second examination shall be called the "Major Examination," and shall embrace the same subjects as the "Minor Examination," but a knowledg- of Botany and a more extended knowledge of Maderia Medica and Pharmaceutical Chemistry will be required. The candidate must also produce evidence that he has served at least four years in a drug store and attended two courses of lectures on Materia Medica, two courses on Chemistry, and one course on Botany. After passing this examination, and producing the required Certificates, the candidate shall be registered as a "Licentiate of Pharmacy."

10. All the examinations referred to in the previous clauses—viz., the Preliminary Examination, the Minor Examination, and the Major Examination—shall take place and be regulated by such rules and regulations as may be in force at the time such examinations are held, and all candidates for any of the said examinations shall pay such fees as may be imposed by any such rules or by-laws.

11. The Council of the said Corporation for the time being, by themselves or such other competent persons as they should think fit to appoint, shall examine and decide upon the admission of Licentiates, certified Clerks and Certified Apprentices of the said Corporation, and grant such certificates or diplomas as they shall think proper to the persons whom they shall deem qualified to be such Licentiates, Certified Clerks, or Certified Apprentices respectively.

12. The Board of Examiners for the time being shall have power to dispense with the examinations herein provided for,and to accept in lieu thereof, authenticated certificates of examination in Pharmacy by duly appointed Medical or Pharmaceutical Boards, accompanied by certificates of good moral character, and subject to such other regulations as may be imposed by by-law.

13. The Registrar shall from time to time make out and maintain Registers of: 1st, Licentiates in Pharmacy; 2nd, Certified Clerks; and, 3rd, Certified Apprentices respectively; and shall grant on application, certificates of such Registration on payment of such fee as may be fixed by By-Law; and the said Registrar shall make new Registers for each year, and omit therefrom the names of persons deceased or transferred from one Register to another.

14. The Annual General Meeting of the College shall be held alternately in the Cities of Montreal and Quebec, on the second Tuesday in the month of June in each year, or such other day near thereto as shall be determined by the Council.

15. On and after the First day of May, 1875 it shall be unlawful for any person except a registered Licentiate or Member of the College of Physicians and Surgeons of Lower Canada, to keep open any store for the retailing, dispensing, or compounding of the Poisons enumerated in Schedule A, or to sell or dispense the said enumerated Poisons, or to engage in the dispensing of prescriptions, or to assume or use the title Chemist and Druggist, or Chemist

or Druggist, Apothecary or Pharmaceutist, or Pharmacist or Dispensing Chemist, within this Province, unless he be registered in accordance with the provisions of this Act as Licentiate in Pharmacy; and it shall be unlawful for any such Druggist, Chemist, Pharmaceutist or Pharmacist, to employ any clerk or apprentice in any shop or store for the sale of such Poisons or in the dispensing of Medicines, except such clerk or apprentice be registered as required by this Act.

16. Any person offending against the provisions of the preceding section, shall incur a penalty not exceeding to be recovered before any Magistrate, together with costs; which said penalty and costs, in default of immediate payment, shall be enforced by distress; and in default of sufficient distress the defendant shall be liable to be imprisoned in the common gaol of the district for a period not exceeding ninety days, unless such penalty and costs be sooner paid; such penalty to be paid to the Treasurer, and to be applied to the general purposes of this Act.

17. If any person shall falsely represent by any name, title or description, that he is registered under this Act, or falsely represent the class or grade of his registration, or engage himself as a certified clerk, not being registered as such, he shall upon conviction before a Magistrate, be liable to a fine for, every such offence not exceeding together with costs; which said penalty and costs, in default of payment, shall be enforced by distress and in default of sufficient distress, by imprisonment as provided by the preceding section; and no person competent to be a witness in any suit or prosecution in which the Corporation may be engaged, shall be deemed incompetent by reason of his being a member or officer of the said Corporation.

18. It shall be unlawful to sell any of the Poisons named in Schedule A, unless the box, bottle, vessel, wrapper, or cover in which such poison is contained, be distinctly labelled with the name of the article and the word "Poison," and with the name and address of the seller of the poison. And it shall be unlawful to sell any poison to any person unknown to the seller, unless introduced by a person known to the seller; and on every sale of any such article the seller shall, before delivery, make or cause to be made an entry in a book to be kept for that purpose, stating in the form set forth in Schedule B to this Act the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required, to which entry the signature of the purchaser, and of the person, if any, who introduced him, shall be affixed; and any person selling Poison otherwise than is herein provided, shall, upon conviction before a Magistrate, be liable to a penalty not exceeding ; and for the purposes of this section the person on whose behalf any sale is made by any apprentice or servant, shall be deemed to be the seller.

19. The several articles named or described in Scedule A shall be poison, within the meaning of this Act, and the Council of the said Corporation may, from time to time, by by-law, and with the concurrence and approval of the Board of Governors of the College of Physicians and Surgeons, declare that any article named in such by-law be deemed a poison within the meaning of

this act, and it shall then be added to and become part of Schedule A, and such addition shall be advertised in the Quebec Official Gazette.

20. All penalties imposed under this Act shall belong to and be payable to the said Corporation, and shall be applied for general purposes of this Act.

21. The Act passed in the Session of Parliament in Canada, held in the 27th and 28th years of Her Majesty's reign, chapter 51, is hereby repealed, and section 16 of chapter 71 of the Consolidated Statutes of Lower Canada thereby repealed, shall not revive, but shall be considered as repealed, notwithstanding the repeal of the said Act.

22. Nothing in this Act shall interfere with the privileges conferred upon Physicians and Surgeons by the various Acts relating to the practice of Medicine and Surgery in this Province, nor with the business of wholesale dealers in drugs in the ordinary course of wholesale dealing, nor with Chemical Manufacturers, nor with duly licensed Veterinary Surgeons.

23. This Act shall be deemed a public Act, and may be cited as the Quebec Pharmacy Act of 1874.

SCHEDULE A.

Arsenic and its preparations.
Prussic Acid.
Emetic Tartar.
Cyanide of Potassium and all Metallic Cyanides.
Aconite and its preparations.
Opium and its preparations, with the exception of Parigoric and Syrup of Poppies.
Essential Oil of Almonds, unless deprived of Prussic Acid.
Corrosive Sublimate.
Cantharides.
Savine and its Oil.
Ergot of Rye and its preparations.
Strychnine and all poisonous vegetable Alkaloids and their Salts.

SCHEDULE B.

Date.	Name of Purchaser.	Name and Quantity of Poison Sold.	Purpose for which Poison is required.	Signature of Purchaser.	Signature of Person Introducing Purchaser.

The Bill was read to the meeting, and several important suggestions were made to which Mr. Mercer agreed. It was not deemed advisable to discuss the Bill clause by clause, inasmuch as the College expressed a desire that the Pharmaceutists should obtain for themselves Legislative authority to regulate their own curriculum. The following report was handed in and submitted to the meeting. The Committee on the Bill to amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, and to regulate the sale of Poisons, beg to report that at a meeting held on the 6th July instant, there were present as representing the College—Drs. Scott, Fenwick, Robillard, Peltier and Rottot, and on the part of the Pharmaceutical Association :—N. Mercer, and Henry Lyman, Esqrs., and that they concurred in the adoption of the said Bill as proposed by the Association with the following amendments :—

"That it shall be rendered compulsory for Students in Pharmacy, to qualify them for examination, to attend one or more courses of Lectures on Botany, Pharmacy, and Practical Chemistry, also that clause 15 of the Bill be amended as follows—After the words any person in the first line—there shall follow—except a registered Licentiate or Member of the College of Physicians and Surgeons of Lower Canada.

(Signed,) W. E. SCOTT, M.D., Chairman,
J. P. ROTTOT,
G. E. FENWICK,
E. ROBILLARD,
H. PELTIER.

It was then moved by Dr. Howard, seconded by Dr. Hingston, that the report be received and adopted—Carried.

The next subject for discussion was the notice by the Hon. Dr. Ross, of Quebec, seconded by Dr. Dubé, of Riviere du Loup (*en bas.*)

"That at the next Triennial Meeting of the College, he

will propose amendments to the law concerning the Study and Practice of Medicine, Surgery, and Pharmacy; and that a Committee composed of Drs. Scott, Landry, Jackson, Ross and Dubé, be named to enquire into such amendments, and report at said meeting."

It was decided that in the absence of both the proposer and seconder of the above motion, and also inasmuch as no report from the Committee above named was forthcoming, that the subject would have to lie over for the present. The Committee reported that the following gentlemen had sent their proxies, and that they were entitled to vote having paid all dues, viz: Drs. G. W. Campbell, Craik, MacCallum, Drake, Schmidt, W. H. Taylor, Desjardins, Dagenais, Austin, Marsden, Roddick, G. Ross, A. G. Fenwick, J. P. Russell, Hon. J. J. Ross, Reddy, Weilbrenner, Girdwood, Church, Chamberlin, Gardner, Trenholme, Kennedy, Godfrey, F. X. Perrault, A. Brosseau, and D. T. Scholfield. The next business of the college was the election by ballot of 36 Governors to serve during the ensuing three years. Drs. Rinfret, Gibson, and G. E. Fenwick, were appointed to act as scrutineers, and the ballot having been taken, the members adjourned to allow the scrutineers time to make up their report. After re-assembling the following gentlemen were declared duly elected Governors for the ensuing three years:

For the city of Montreal, — Drs. Scott, Howard, Peltier, Rottot, Godfrey, Hingston, Robillard, and G. E. Fenwick,

For the District of Montreal.—Drs. Chamberlin, Weilbrenner, Brigham, Gibson, Church, Duchesneau, and F. X. Perrault.

For the city of Quebec.—Drs. J. E. J. Landry, R. H. Russell, Jackson, Tessier, Rinfret, Robitaille and Rousseau, and Belleau.

For the District of Quebec.—Dr. Michaud, L. J. E. Desjardins, Marmette, Dubé, Tetu, P. Pelletier and St. Georges.

For the District of St. Francis. — Drs. Worthington, Gilbert and Hamilton.

For the District of Three Rivers.—Drs. J. J. Ross, A. G. Fenwick and Landry.

The Governors elect then proceeded to chose by ballot the officers for the ensuing term of three years, with the following result:

President, R. H. Russell, M.D., Quebec; Vice-Presidents, Drs. R. P. Howard and Marmette.

Secretary for Montreal, H. Peltier, M.D.

Secretary for Quebec, A. Belleau, M.D.

Registrar and Treasurer,—E. Robillard, M.D.

A vote of thanks was passed in favor of the retiring officers. It was unanimously decided that the next Triennial meeting to be held in July 1877, should take place in the town of Three Rivers, of which due notice will be given in the usual way by advertisement. The thanks of the College were proffered to the authorities of the Court House for the use of the Court rooms. No further business being before the college, the meeting was declared closed.

PERSONAL.

Dr. R. A. Stevenson, a graduate of the University of McGill College, of 1871, passed through Montreal last week on his way to England, where he intends to spend some time in attending the various London Hospitals. Dr. Stevenson has been practicing in Strathroy, Ont., and has secured by his gentlemanly address and professional skill not only a flourishing practice but also a numerous circle of friends. On his departure from Strathroy he was entertained at a supper by his friends, and presented with a pusre of $150, with which he was to purchase in England, a set of instruments, as a mark of the respect and esteem in which he is held by his fellow citizens.

We wish Dr. Stevenson all success in his visit to the mother country, and we are sure that he will derive not only pleasure but profit, from a view of the medical and surgical practice of the great lights of our profession in the old world.

ABSTRACT FOR THE MONTH OF APRIL, 1874.

DAY.	THERMOMETER.								BAROMETER.				Rain and Sleet.	Snow. Melted	Constant + 0.100 used in all Barometer Readings.
	9 a. m.	3 p. m	9 p. m.	Mean	Max.	Min.	Rnge		9 a. m.	3 p. m.	9 p. m.	Mean.			
1	8.5	24.5	17.5	18 5	25.5	0.5	25.0		30.330	30.145	30 067	30.181	.....	.....	Coldest day.
2	24.7	43.0	37.5	35.1	44 0	9.0	35.0		29.875	29.765	29.715	29.785	.....	.....	Greatest range ther. 35.
3	30 5	32.2	23.5	28 9	33 7	30.0	3.7		.593	.703	.776	.691	.....	0.07	
4	11.6	21.0	15.8	15 4	21.5	6.0	15.5		.948	.937	30.686	.990	.....	.....	
Sunday 5	24.2	33.2	32 0	29.8	34.1	12 0	22.1		30 170	30.115	29.035	30.073	.....	.....	
6	31.0	37.5	31.5	33.3	38 5	27.5	11.0		29.628	29.820	925	29.791	.....	0.17	
7	34.7	43.5	37.5	38.5	45.8	29 0	16.8		.926	.885	.976	.929	.....	Inapp.	Aurora midnight.
8	35.2	37.5	30 5	34.8	39 0	28.5	11.5	Mean of	30.055	30.016	30 025	30.032	.....	0.17	
9	28.5	36.3	30 8	31.8	37.8	26.8	11.0	10 days.	.120	.095	.135	.117	.....	.....	
10	26.0	33.0	30.4	29.8	34.2	24.3	9 9	29.09	29 840	29.845	29.840	29 841	.....	.....	
11	31.8	36.2	26.0	31.3	42 0	24.5	17 5		.735	.943	30 150	.909	.....	0 15	
Sunday 12	18 5	31.5	25.0	25.0	32.3	10.2	22.1		30.395	30.420	.425	30.413	.....	.....	
13	30.0	40.5	34.7	34.4	42.0	20.7	21.3		.456	.256	.122	.277	.....	.....	Highest Barometer.
14	42.5	52.5	43.5	46 1	54.3	29.2	25.1		29.987	29.885	29.775	29 866	.....	.....	
15	48 6	51.5	49.8	49.9	53.2	34 5	14.7		.657	.597	.586	.617	0.08	.....	Warmest day.
16	31.5	38.5	32 7	34.2	40.3	25.6	14.3		30 060	30.195	30.198	30.151	.....	.....	
17	32.0	....	....	32.0	37.1	26.8	10 3		.298	.....	.....	.298	.....	.....	
18	36.0	....	....	36.0	47 8	24.1	23.7	Mean of	.317	.....	.....	.317	.....	.....	
Sunday 19	37 0	51.0	39 7	49.2	52.8	35.0	17.8	10 days.	.187	30.205	30.285	.229	0 84	.....	Snow, sleet and rain.
20	34.8	34 5	34.0	34 4	34.8	30.2	4 6	36.35	.137	29 873	29.615	29.875	.....	.....	
21	35.8	37.0	34 2	35.7	37.5	32.5	5.0		29.498	.705	.876	.693	.....	Inapp.	
22	38.0	43.2	37 0	39 1	44 2	27.5	16.7		.987	.956	30 035	992	.....	.....	
23	38.5	42 0	34.2	38.2	43.8	29.3	14.5		.898	858	29 8•3	.879	0.11	.....	Snow and rain.
24	38.2	41.3	35.0	36.5	43.3	28.5	14 8		30 065	30.116	30 196	30.126	.....	.....	
25	42.0	48.7	39 8	43.5	49.8	27.0	22.8		.105	048	29.876	.009	.....	.....	First vessel entered port.
Sunday 26	32 6	34.2	35.0	33 9	35.2	32.0	3.2		29.616	29.641	.778	29.678	.....	0.67	Snow storm.
27	41.8	43.8	35.7	40.3	43.8	31.8	11.0		915	926	30.015	.952	.....	.....	Least range ther, 3.2
28	37 5	43.2	38 0	37.2	44.0	25.0	19.0	Mean of	30 078	30 016	.026	30.039	.....	.....	
29	32.5	32.0	31.0	31.5	34.2	30.0	4.2	10 days.	29.946	29 827	29.768	29 847	.....	.....	Lunar Halo.
30	31.5	38.2	35.8	35.2	39.0	26.5	12.5	37.11	.836	.345	.426	.385	.....	0.21	Snow storm.
....	....	....	....	....	....	....	....		.....	.....	.....	.....	.....	.....	Lowest barometer.
SUMS....	....	....	....	....	....	....	....		.....	.....	.....	....	1.03	1 44	
MEANS	34.20	....	33.80	37.52	39.85	24.93	....	37.52	.....	.....	.....	29 989	.....	.....	

ANALYSIS OF METEOROLOGICAL OBSERVATIONS BY T. D. KING FOR THE MONTH OF APRIL, 1874.

Mean temperature of the month, 37.52; mean of the maxima and minima temperatures, 32.39; greatest heat on the 14th, 54.23; greatest cold on the 1st, 0 5 above zero—giving a range of temperature of fifty-four degrees. Greatest range of the thermometer on the 2nd, 35.0; lowest range on the 26th, 3.2.

Mean height of the barometer corrected for temperature 32°, and reduced to sea level (constant applied + 0.100) 29.989; highest reading of barometer on the 13th, 30.456; lowest reading on the 30th, 29.345—giving a range of 1.111 inches.

Rain and snow fell on fourteen days; amount of precipitation when the snow was reduced to its equivalent of water, 2.47 inches. Reckoning 10 inches of snow to be equivalent to 1 inch of rain-water, the depth of the snow fall may be estimated at 1 foot 5 inches.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Axillary Aneurism—Ligature of Subclavian Artery. Recovery.—By George Ross, A.M., M.D., Professor of Clinical Medicine, McGill University. Reported by Mr. E. B. C. Harrington.

A. C., stone-cutter, aged 24 years, was admitted into the Montreal General Hospital on the 20th May, 1874, under the care of Dr. Ross. He is a well made young man, six feet in height, with black hair and eyes, clear complexion, and intelligent countenance. He has always lived in a country town; had never been intemperate, and beyond one gonorrhœal attack, has been free from venereal diseases. There is no syphilitic family history. When a lad he was laid up with pneumonia, but completely recovered and enjoyed capital health until four years ago, when he had an attack of acute inflammatory rheumatism, involving the joints of both lower extremities.

This prevented his working for a year, keeping him in bed about half that time, while ever since he has suffered from irregularity in the heart's action, upon any excitement or exertion. Last Autumn he was troubled a great deal from alternating chills and fever, which ultimately caused much weakness and loss of flesh. He had not at any time previous been exposed in a malarious district, and his physician assured him that it was not "fever and ague." At this time he experienced a severe pain over the cardiac region, extending thence in a line to a point just above his

right nipple. This pain was increased by any exertion, or by stooping, while in addition to this his bowels were constipated and digestion impaired.

On the 3rd of January, while at some distance from his house, he was seized with a sharp pain, which began in his right shoulder and then ran down the arm; and almost immediately the whole limb became cold and white. He at once started for home, and while walking had occasional attacks of giddiness, stumbled and had a "swimming blackness" all around him. Friction and warmth were used in endeavoring to re-animate the limb, and at midnight when he was sitting up, his friend still rubbing his arm, he felt a cold chill run up his left side, then came numbness and pricking, followed by complete loss of sensation and motion in the left side.

He did not lose consciousness, and the left side of his face was merely deprived of sensation, the motor power not being affected. He had some difficulty in his speech, being thick-tongued for forty-eight hours, while his memory was impaired for about the same length of time. In the week following he had retention of urine, which necessitated the introduction of a catheter twice or three times.

In the *right arm* both power and sensation were absent for a fortnight, while the limb kept blue and clammy, but at the end of this period, with the disappearance of the pain in his shoulder, the functions of the part were somewhat restored.

After the hemiplegia of the *left side* had lasted six weeks, galvanism having been applied daily, both motion and sensibility re-appeared, coming simultaneously in both extremities.

In the meantime the right arm had gained considerable strength, and continued improving, until the end of February, when the old excruciating pain again made its appearance in the right shoulder, and he now for the first time noticed a swelling about the size of a walnut [illegible] the right axilla. This tumor was sup-

attendant to be an enlarged axillary gland, while the pain was treated as of rheumatic origin ; not being improved by the treatment, and getting alarmed at the steady growth of the tumor, he came by Dr. Moore's advice to the General Hospital.

Condition on Admission.—The right arm hangs, cold and livid by his side, all motion in it being limited to slight action of the Biceps and Deltoid muscles. The second and third phalanges are rigidly flexed upon those of the first row, the nails being purple, while there is not the faintest pulsation in either the radial, ulnar or brachial arteries. Sensation appears good over the whole limb.

In the axilla is a tumor the size of a large lemon, which fluctuates, pulsates forcibly, and gives a very perceptible thrill to the hand, and by auscultation a bellows sound or whizzing bruit. The pulsation is entirely controlled by pressure on the subclavian over the first rib. The size is lessened, the throb is diminished, the bruit decreased, by pressure above, and vice versâ, they are all exaggerated by pressure below, or by elevation of the limb. Great pain with numbness is complained of *through* the shoulder, but there is no particular tenderness at any point. By percussion the heart was found to be normal in size : the apex beat occupying the fifth interspace, and in a direct line with the nipple.

By auscultation the sounds at apex were found healthy. At the base was noticed a slight roughening of the first sound. Each sound was distinct, and the roughness, which could hardly be called a murmur, was most audible over the aortic cartilage, being lessened above and below. Lungs, and other organs normal. Urine contains no albumen, and otherwise healthy.

Since the patient has been put to bed he complains of no pain, is very cheerful, and anxious to be operated upon,

The aneurism being controlled so well by the subclavian, Dr. Ross decided to give

digital compression a trial before resorting to ligature of the artery. Accordingly the patient was placed on a mattress, with his head and shoulders in a lower, yet comfortable position, and at 2.30 p.m. four students undertook the task of compressing the subclavian artery, in its third portion, just where it passes over the first rib.

May 28.—Compression has been faithfully kept up for the last forty-eight hours, the students relieving each other every half hour.

After the first hour the patient lost all sensation and power in the arm, and could not tell where it was, excepting by feeling for it with his other hand. After an hour it gradually began to recover sensation, and became warm and rosy. By means of a hypodermic injection of an eighth of a grain of morphia, twice in the night, he managed to sleep well. His bowels were not moved, and the urine was withdrawn by a catheter. All pulsation was completely controlled, excepting during the change of hands.

No change whatever has been effected in the tumor. A small cutaneous slough has been developed in spite of the greatest care, and the young man's patience is entirely exhausted. Digital compression was therefore abandoned, and a dressing of Ung. zinc oxyd. applied to the tender surface.

The patient was subsequently seen by Drs. Campbell, Howard, Reddy, Fenwick, and others of the Hospital staff, and it was agreed, in view of the fact that the tumor was rapidly growing, and that, through delay, any operation would in all probability be rendered more difficult, that as soon as possible the subclavian should be tied. The dangerous character of the operation was fully laid before the patient when he unhesitatingly decided for himself that it should be done.

Accordingly on the 5th June the operation for ligature of the subclavian in the third part of its course was performed by Dr. Ross, assisted by Drs. Campbell, Fenwick, Reed and Howard, in the presence of the

Hospital, as well as several other medical gentlemen, amongst whom was Dr. Moore, of Troy, N. Y., who had previously had charge of the case.

Chloroform having been administed by Dr. Cameron, Assistant House Surgeon, the skin of the neck was drawn down by the operator's left hand, and an incision made directly upon and along the clavicle for a distance of four inches; a second incision was then carried upwards from the inner angle of the foregoing for a distance of two inches along the posterior edge of the sterno-mastoid muscle. The included flap was carefully dissected up, and the external jugular vein exposed; this was readily drawn inwards by a blunt hook, and thus held away from injury during the remainder of the operation. The deeper layers of fascia were then disposed of, partly by division on a director, and partly by scratching through with the nail and knife-handle, all vessels being carefully avoided. There was no bleeding and the posterior edge of the scalenus anticus was soon reached. What was believed to be the vessel was now felt against the rib, but on passing an aneurism-needle beneath it and compressing it, no effect was produced upon the aneurism. This was, no doubt, the suprascapular artery much enlarged and tortuous. It was, therefore, immediately released. Although the subclavian could now be distinctly felt between the finger and the first rib, yet, owing to the depths of the parts, it was not easy to pass the needle fairly around it. The lower branch of the brachial plexus of nerves was thus mistaken for the artery for a moment, but careful examination soon exposed the error. Finally, the needle was gently passed round the subclavian from below upwards, just outside the edge of the anterior scalenus muscle. It was secured by a ligature of carbolised silk, the end being allowed to hang out of the wound. The [illegible] was closed by sutures of carbolised catgut, and the [illegible] dressed with carbolic water—1 to 40. A small [illegible] left at the depending corner for drainage. He [illegible] on a hair mattress, his shoulders being kept [illegible]ble with comfort.

For several days he remained quite comfortable, free from pain, sleeping well under the influence of a small hypodermic injection of morphia, pulse from 100 to 108, and temperature only a little above 99°; but on the 12th, complained for the first time of a pain in the right side, about the nipple, pulse rose to 118 and temperature to 101°. No abnormal sounds could be heard on auscultation. He was relieved by a sinapism and an enema, and next day the temperature had fallen again to 99°. The wound meanwhile was granulating and discharging a very moderate quantity of healthy pus.

17th June.—12th day after operation. The ligature separated to-day without accident. Pulse 110; temperature 98⅖°. Feels well and takes nourishment very freely.

The day following the temperature was 101° and for the ten succeeding days he is reported not progressing quite so well, some pain in the neck having been complained of together with two or three slight chills at intervals; temperature ranging from 100° to 101⅘°, and the pulse from 110 to 120. Diarrhœa was also troublesome about this time and some fears of the possibility of the commencement of septicæmia were entertained. The discharge of pus had become rather more profuse. However, by the 28th the report is much more favorable; "Pulse 90, temperature 98⅕°. Diarrhœa ceased; general appearance good; wants to get up and go out."

4th July.—Was up to-day and spent the afternoon on the verandah. Discharge much diminished, is applying red wash in place of the carbolic solution.

5th July.—Had a violent paroxysm of palpitation of the heart this morning, without any apparent cause and lasting several minutes. Has had similar attacks before.

8th July.—Has been up the last two days; was discharged to-day and went as far as Troy, N. Y. The wound is entirely closed in its deeper parts and only a narrow granulating strip is left to heal. The mass of the aneurism has shrunk to at least one-fourth its original

dimensions and is only to be felt as a small, round, smooth lump deep in the axilla.

I was subsequently informed by letter that after the railway-journey he had had a very severe cough and had expectorated a large quantity of thick and dark pus and appeared much tired and depressed, but a few days later (16th July) I received a note from Dr. Moore, under whose care he then was, which reports as follows:—"Cough much less, expectoration much less. and the appearance of it more healthy; wound nearly closed; relishes his food well; sits up five or six hours every day; general appearance very good."

REMARKS.—This case is one of considerable interest, especially as, so far as I have been able to ascertain, it is the first of the kind which has been performed in Canada. If this is not so, I should be glad to be set right in the matter. The mortality of ligature of the subclavian artery has been so large even in the hands of the most experienced surgeons—recent statistics showing it to be about 50 p.c. of all the cases—that naturally every expedient will be resorted to before having recourse to such a formidable procedure. Digital compression was fairly and faithfully tried by intelligent and zealous students, but entirely failed. There can be no doubt that these cases are less adapted for this method of treatment than popliteal aneurisms, the femoral artery being much more easily compressed and pressure there being better borne. The only other plan of treatment possible was the application of galvano-causty. I had not, however, within my reach the apparatus necessary for this.

As regards the operation itself, the only difficulties met with were the temporary interruptions mentioned in the report. To any one, however, who is intimate with the anatomical relations of these parts and acquainted with the numerous similar positive errors committed by eminent surgeons, such will not appear at all surprising.

Holmes, in the third vol. of Holmes' Surgery,

states that probably the chief cause of ill-results after this operation will be found to be pleurisy and inflammation of the subserous cellular tissue leading to purulent formation in the anterior mediastinum. I would submit it as a question whether some such subserous inflammation might not have been, in an obscure way, going on to account for the indefinite feverish symptoms noticed in the report; and whether from the jolting in the railway carriage such a purulent collection might not have found its way into either the trachea or a large bronchus which it was preparing to open. I can see no other explanation of his suddenly expectorating a large quantity of dark pus almost immediately on reaching home. This, however, appears to have been followed by complete relief, as was found to occur in several cases reports of which have been published.

Another clinical feature of interest in this case is the occurrence of almost complete but temporary hemiplegia of the left side, following closely upon the blocking up of the right axillary artery by the aneurism. Was not this embolic? If so, what connection was there between the existence of a right axillary aneurism and the plugging of a right cerebral artery with a clot?

I am much indebted to Mr. Harrington for the foregoing report, and for his management of the compressing staff, as well as to several of his fellow-students who composed the same.

Medico-Legal Evidence in Identification of Human Remains after Exposure to Fire. By G. P. GIRDWOOD, M.D., M.R.C.S., England, Professor of Practical Chemistry, McGill University.

It so seldom occurs that a medical jurist is called upon to express an opinion concerning portions of a human body, or fragments suspected of being portions of a human body, after those fragments or portions have been submitted to

the action of fire; that I desire to lay before the profession a few notes, concerning two cases in which my opinion was asked;

On referring to such works as I can I find mention made only of the case of Dr. Parkman, who disappeared suddenly in Boston on Nov. 23rd 1849, and whose remains were subsequently discovered in and around Dr. Webster's laboratory. Fragments of the skull bones were found in the ashes of the laboratory furnace which when put together enabled a dentist who had fitted some artificial teeth for Dr. Parkman, to identify the jaw and artificial teeth as belonging to Dr. Parkman, thus proving the identity of the remains.

In the first case which came under my observation I was invited by coroner Jones to examine some bones which had been burnt, and to determine if possible whether or no they were human bones.

The history of the case as appeared subsequently at the trial, "the Queen v. John Henry Wilson, for murder" was briefly as follows.

Wilson's mother had contracted a second marriage, against her son's wish, in consequence of which an ill feeling had sprung up between himself and his stepfather who held a small farm, and obtained his living partially by burning lime and partly by farming. A kiln for the purpose of burning lime was near the house; this squabble continued and increased to such an extent that Wilson left his stepfather's house and sought and obtained employment in the neighborhood.

The stepfather and the mother remained at the house with two little children. The stepfather proceeded with his avocation of lime burner, and when so occupied was in the habit of sleeping out beside the lime kiln in a wood shed so as to be ready to tend his fire, and usually had a buffalo skin to sleep on.

One evening the mother went to the village of Caughnawaga and remained the night with some sick relatives, leaving the two children in the house, and her husband,

burning lime at the kiln. That night Wilson visited the house, the children hearing a noise asked who was there to which question Wilson replied it was he, and asked them where the axe was. They answered, in the wood shed. The stepfather was never seen afterwards. Wilson continued to burn the lime, for a full week, and it was stated with a more than usually large fire. When asked where his stepfather was, he answered that he was gone to the States. After burning the lime for over a week, he drew the fire, but at the same time broke in the arch of the lime kiln, so as to let the lime into the ash hole. This was soon after harvest and the crops had been cut and gathered in from the field adjoining the kiln. A side road ran past the kiln, and came into swampy ground of deep black loam into which the cart wheels sank deeply, in several places round about the kiln in the adjoining field and particularly into these cart ruts Wilson was seen to be strewing ashes and these ashes he stated were from the lime kiln fire, and when asked what bones those were amongst the ashes he was reported to have said his stepfather's. It was from those places that the bones had been collected which were submitted to me. Some of these bones had become quite like porcelain from the action of the heat, and were so hard that I could not cut them with a steel saw, others were not so hard, but had been cracked by the heat and being deprived of gelatinous matter, were very friable. These had been put into a pocket handkerchief and tied up, and allowed to grind together, so that by the time I had an opportunity of seeing them, they were considerably damaged. I visited the spot and picked up some other bones myself. Those portions which I was able to identify, were the processus dentatus of the axis together with a portion of the superior articulating surface of the left side attached to it, a portion of the first rib, a fragment of the symphysis pubis, a portion of the patella, both astragali, the internal cuneiform bone of the left foot and the scaphoid of the right foot, the base of metatarsal bone of the little toe of the left foot, and so of the

phalanges. The os magnum of the left hand and some of the phalanges of the hands. These bones and fragments of bones I have soaked in gelatine, to prevent further destruction.

To identify these as portions of a human body was the first duty. On those fragments an inquest was held and the prisoner was committed. At the trial the identity of these bones rested on the fact of the finding of two buttons which are buttons similar to those found on the United States soldiers' jackets one of which the missing man usually wore, and had on at the time he was last seen, and by a metal buckle which deceased wore on a leather strap round his waist.

The second case is one the features of which most of you are probably familiar with, they are as follows: A young woman was supposed to be in the family-way who should not have been. It was supposed she had been confined, and had made away with the infant. Under this supposition the premises where she lived were searched by the chief constable who found in the stove, some bones and fragments of bones that had been burnt. These bones were submitted to me to determine if they were human bones, and if so, were they the bones of a newly born infant, either at or shortly before maturity. I had little difficulty in determining both these questions, firstly they are not human bones, and secondly they could not be bones of a newly born infant.

Both these cases have points of interest, and are instructive, and more particularly to junior members of our profession. The former case shows the changes that bones may undergo when submitted to high temperature for a considerable period, and through what apparent dangers their form may be preserved so as to be capable of identification. It is curious how so large a bone as the astragalus should have remained uninjured, and so few of the long bones of much denser structure should be present in the debris. It may have been that the long bones and head bones had been removed to another place and escaped find-

ing, but the presence of the hand bones and bones of both feet, patella, and of the axis, so intimately connected as it is with the skull, lead to a fair inference that these were representatives of a whole skeleton.

The bones in the second case, point to the necessity of a medical education embracing a course of comparative anatomy, for on examining these bones even cursorily their origin is shown at once by their lightness, and the large cavity within and the thin external shell, and the large cancelli and the pillars crossing between the sides of the shell pointing to the air cavities existing in the bones of birds and their adaptation to the purposes of the animal to which they belong. They could not be bones of an infant for independently of their shape the epiphyses are all attached showing that the animal had arrived at puberty. There are two fragments which require comment, they are fragmentary and the cancelli are large and loose, these two bones I believe to be portions of the rib bones of a pig. The others the leg and wing bones of a good sized and well ossified chicken. The question naturally arises how came these bones in the stove, the answer simple. These people are living in a tenement house, and having no convenience for disposing of them otherwise, threw them into the stove as soon as they had got all they could out of them. As a sanitary measure burning is probably the best way of getting rid of such refuse. In this case the coroner objected to hold an inquest on the bones. I am informed that they were submitted to a gentleman, who thought they might be monkey's bones and the magistrate Captain Brehaut, was constrained to ask of me a private opinion on these bones from not being able to get proper instructions, and the unwillingness of the authorities to incur any expense in the matter.

Correspondence.

We have heen requested to insert the following letter, addressed to the *Toronto Mail.*—ED.

MEDICAL ETHICS AND JOURNALISTIC HONOUR.

To the Editor of the Toronto Mail.

SIR,—The courteous editor of the *Canada Lancet,* although unwilling to allow me to speak in its columns, has not scrupled to assail me in a manner, which will be characterized as I proceed. His limping editorial of more than a column concludes with the words "*verbum sat sap.*" If a word to the wise is sufficient, the compliment he pays to his readers is obvious.

If this were a personal matter I would not trespass upon the general public; but principles of equity and ethics are involved concerning the medical profession of Ontario at least, and I naturally seek the most certain way of reaching the ear of the Ontario profession—through the columns of *The Mail,* being denied the privilege in the *Lancet.*

The question discussed in my former letter, which you kindly inserted some time ago, was: "Should a medical man write in the general press to meet the arguments and misrepresentations of that press against his profession?" The editor of the *Canada Lancet* says no, "because such writers may justly be suspected of trying to exalt their own personality." In language intended to be inoffensive I discussed this subject in the light of the events connected with the late legislative action. But the editor of the *Canada Lancet,* unable to controvert my arguments, again adopted the tactics of the *Globe,* and, while refusing to publish my letter, resorted to the most unfair and unmanly course of misrepresenting me; and upon these misrepresentations basing

a tirade of abuse. It is hardly necessary for me to say that all I ask is fair play of the editor of the *Lancet*, and then I am perfectly content to allow the medical public to judge who is right. And this is what will be done in spite of the efforts of the *Lancet* to deceive its readers and to be personal. Finding himself incompetent to answer arguments, the courageous editor endeavours to raise a false issue, and, regardless of the absurd position he takes, repeates his stereotyped words sbout "efforts to exalt one's personality." It was not agreeable to the valiant editor to have his weakness exposed in the public press, and so he attempt to make a point by charging me with a desire to exalt my personality in taking steps to place my letter in the hands of those who had most likely read the *Lancet*. Now, it is perfectly plain the editor of the *Lancet* knew he was writing nonsense, because, in a previous sentence, he declares that he would make known my personality only for mercy's sake! The fine sense of honour here manifested will be refreshing to journalists in general. The editor of the *Lancet* claims that it is mercy alone which prevents him from divulging the name of a correspondent, given to him in confidence, under the belief that the editor of the *Lancet*, like other journalists, held such confidence as sacred. So far as the writer of these lines is concerned, he is not aware that more than two medical gentlemen know his name, and he is ignorant that any one but the editor of *The Mail* outside of the profession has any knowledge of his identity. Therefore, if he be known, it is in consequence of the want of the ordinary professional honour and sacredness of the editorial chair exhibited by the *Lancet*. I may say here, I neither court nor shun publicity. I wrote to the *Lancet* over an assumed name in order that the question might be regarded independently of individuals; but from the first the *Lancet* has been trying with discourteous intent to drag my name before the public. I now inform the editor of the *Lancet* that he is at liberty to place my name to the several letters if he will thereby be induced to publish them.

It seems to have touched the sensitive editor to have my letter distributed among the medical men and the medical students attending the hospital. He "supposes these fly sheets were distributed among my patients." The absurdity of this statement is apparent when it is remembered that my name is unknown, unless revealed by the accommodating man of all works, who carries information to the editor from the Hospital. The fact is the fly-sheet was placed only in the rooms devoted to the doctors and students; and I charge the editor of the *Lancet* with a knowlege of this when he penned his article. But I am sure it will surprise the medical public to learn that this same would-be-censor, who deliberately misrepresents one, is wont to bid for popularity and students (with an eye to future subscribers) by carrying his precious *Lancets* to the lecture-rooms and gratuitously distributing them. Perhaps it is, however, a part of the agreement he has with his advertising friends to thus spread abroad unseemly anatomical plates. And I think it is about time I spoke more fully respecting those plates. For months there has appeared on the outside of the *Lancet* certain "figures" and representations to catch the eye of the public, one of which particularly might well receive the attention of those whose duty it is to prevent the distribution of obscene literature. I have no doubt the editor of the *Lancet* is induced to thus sacrifice respectabilily by a handsome sum which might even satisfy one of the "avaricious dispensers," to use the polite language of the *Lancet* when speaking of druggists. But it does not become such an one to undertake to point out motes in the eyes of others, much less to attempt to remove them.

Thanking you for the uniform courtesy extended to the medical profession by *The Mail*,

I am, &c.,

ETHICS.

Toronto, July 8, 1874.

Reviews and Notices of Books.

A System of Midwifery, including the diseases of pregnancy and the puerperal state. By WILLIAM LEISHMAN, M.D., Regius Prof. of Midwifery in the University of Glasgow, Physician to the Lying-in-Hospital, &c., &c., 8vo. pp. 715. Philadelphia; HENRY C. LEA, 1873.

The author states in his preface, that his aim in writing this work has been to furnish to students and practitioners a complete system of the Midwifery of the present day, and how well he has succeeded in his arduous undertaking, all, who read his work will readily acknowledge. We have no hesitation in recommending this as the most useful book on the subject to the student and practitioner, in the English language. The author gives the substance of the most modern views on the subject, and gives them in an easy and readable style. The subject is treated of fully in all its parts, and nothing is slurred over. We first get a very complete description of the pelvis, with its muscles, ligaments and articulations, to each and all of which their peculiar part is assigned in the act of parturition. The diagrams in this chapter are admirably adapted to elucidate this somewhat, to the student, misty subject. Next he describes the female organs of generation, and is especially full upon the mucous membrane of the uterus.

The chapters devoted to the development of the ovum, embryo and fœtus, are well and carefully written.

The mechanism of labour is thoroughly explained, and this is one of the best parts of the book, illustrated as it is by diagrams which would make the process intelligible to the dullest intellect. In the management of labour, whether natural or otherwise, in the treatment of hæmorrhage, and in the management of the pregnant or puerperal woman we have a safe guide in Dr. Leishman, and in cases

where there is room for difference of opinion as regards treatment, the evidence on both sides is carefully weighed, and although the author is, from his wide experience, entitled to speak with authority, he is never dogmatic.

The important subject of hemorrhage is exhaustively treated, and the author seems to lean to the treatment of post partum hemorrhage, by a solution of the perchloride of iron, as recommended by Dr. Barnes, but he only views it as a *dernier resort*.

The cases requiring operative interference are well described, and the mode of procedure fully explained. Turning, especially, is thoroughly explained, and considerable space is devoted to a description of *Bimanual* or *Bipolar Version*.

The rules for the management of the child, and the treatment of the mother after parturition, as laid down by Dr. Leishman, leave scarcely anything to be desired: and, altogether, it is a work which we gladly welcome, and which supplies a long felt want. The student will find it a useful and trust-worthy text book, and the practitioner will soon learn to look upon it as a valued work of reference.

The volume is put before the profession, by the enterprising publishing firm of Henry C. Lea, of Philadelphia, in a shape that does them credit. The paper, type and binding are all good, and the price is moderate. We cordially recommend the work to the notice of the profession, and we do not doubt that a second American edition will soon be called for.

Experimental Researches on the Causes and Nature of Catarrhus Æstivus (Hay Feveror Hay Asthma). By CHARLES H. BLACKLEY, M.R.C.S., Eng. London: Bailliere, Tindall & Cox. 8vo., pp. 202.

This peculiar disease is one to which comparatively little attention has ever really been paid by good observers, and although the affection is one which has long been recognized as especially *sui generis*, as presenting symp-

toms unmistakable in themselves, and although general descriptions of it are to be found in our various well-known works on medicine, yet it must be confessed that all our ideas on the true etiology or causation of Hay-fever are extremely hazy and indistinct, and have been derived from statements founded upon a very limited number of observations. Investigations into the true cause of any disease are always surrounded with much difficulty, and we find no exception to that statement here. It is not a common affection, indeed in this country it may be said to be extremely rare, and consequently the observations made by any one person must necessarily be conducted only upon a small number of subjects; and further, not being a disease of dangerous character or requiring much medicinal treatment, it is very difficult to keep the same persons under observation for such a length of time as would render their cases useful in a scientific way. Our author himself has been for many years a periodical sufferer from this annoying complaint, and thus enjoyed (?) unusual facilities for experimentalizing and making accurate notes on the various points which would tend to explain its real mode of origin and communication.

There have been quite a number of discrepant theories at various times promulgated to account for the peculiar phenomena so characteristic of true Hay-fever. Its singular and regular recurrence at a definite season of the year, and its equally sudden and certain disappearance at a certain other period of the year,—the fact that attacks were frequently observed to occur in connection with accidental proximity to new-mown hay, or even to a standing crop of the same—soon directed enquirers to the grass, there to seek for some principle which might be proved to be the offender and the guilty irritant. But, apparently with the usual perversity of ingenious theorists, this ground was abandoned by some, the above singular facts being explained away as mere coincidences, and certain other explanations were offered for its production, entirely inde-

pendent of any noxious emanation from the vegetable kingdom. Thus Dr. Phoebus insisted that it was produced by *heat*, and to meet objections at once apparent was obliged to resort to the supposition that the *first heat of summer* possessed certain peculiarities to be found at no other period of the year. It is almost enough to say that Dr. Phoebus' theory was built upon the observation of *one case* (it being very rare in Germany). Dr. Blackley shows abundant reason why this theory is entirely untenable. Others again attribute it to *ozone* in a similar manner that Influenza has been assigned to the same agency. That this cannot be the case is also shown by the author's observations and experiments upon himself. Some prefer to think that simple dust is at the bottom of the trouble: this theory also will not hold water.

But the most interesting observations and experiments are those connected with the elucidation of the problem—which of the elements or substances arising from active vegetation posseses properties which would render it *probable* that it is in itself the true cause of the distinctive symptoms of the Catarrhus Æstivus? There are very good grounds for believing that the complaint has direct connection in some way with certain states of the surrounding or neighbouring vegetation,—and further, from the mode of attack and from the parts affected, (the nasal, buccal and ophthalmic mucous membranes) it is rendered highly probable that the local lesions were produced by direct contact of the noxious agent. That is to say, that the agent must be either of an imponderable or substantially inappreciable nature, or else in such a fine state of division as to readily reach these points during respiration. On this principle, several different substances have in turn been accused; benzoic acid, coumarin (an odoriferous principle found in some of the grasses and other plants), odours of various kinds, and finally pollen.—Most interesting and carefully-devised experiments are here described, performed with a view of determining which, if any, of these

possessed the property of developing the catarrhal or asthmatic symptoms of Hay Fever.—With all except pollen, the results have been entirely negative. This substance, the pollen shaken from the anthers of various grasses and other botanical species [(a long list of which is given) is directly proven to excite very great local trouble when directly applied to the nasal lining membrane. Besides this a curious relationship is shown to exist between the severity of the attack at any given time and the actual quantity of pollen present in the atmosphere at that time. Much ingenuity has been displayed in the methods employed for determining this latter point, both at the earth's surface, and at considerable altitudes, by means of kites, &c. Dr. B. thinks that the effects produced by pollens upon the human frame arise from some inherent property and not from the presence of any powerful alkaloid; at any rate none such has yet been discovered. The symptoms of the disease are then described minutely and graphically as could only be done by an actual sufferer, and the diagnosis between this and ordinary asthma clearly shown.

The nature of the lesion causing the catarrhal and asthmatic symptoms is believed to be submucous serous exudation. We will allow that such exudation would certainly give rise to the nasal and faucial symptoms witnessed, but we cannot admit, as the author would have us do, that the same process continued to the larynx, is what produces the asthmatic trouble—the dyspnœa. Although it is not easy to explain certain peculiarities of this dyspnœa, such as effect of position upon it, on the supposition of spasm, yet it is highly improbable that intra-laryngeal œdema—that eminently dangerous condition—should be present in a disease which has never been shown to be in any way dangerous to life. Besides, if this be so, why was not the laryngoscope used, and the actual state of the larynx described? We look upon this as a serious omission.

As regards treatment, no great encouragement is to be found. "I have never met with a case," he says, "in which

I could feel sure that the administration of remedies had really produced a cure;" but continues, "I am at the present time engaged in experiments on the action of various agents, and hope to be successful in my search for an effectual remedy for the disorder."

To every physician who has to advise patients suffering from this complaint, this book affords innumerable useful hints, and to all at the present day when germ-theories and disease-causation are such popular subjects, these original observations and experiments concerning this ill-understood disease will be found to contain much that is interesting and instructive.

Archives of Ophthalmology and Otology.

We have been favoured by Messrs. Wm. Wood & Co., of New York, with the July number of the Archives of Ophthalmology and Otology, which has been changed from a semi-annual to a quarterly Journal. This is the first Number of Vol. IV, and in every way sustains the reputation which the Journal has hitherto enjoyed. The ophthalmological part of the book is well and carefully written, and contains several interesting papers and clinical cases, among others are a case of retinal glioma, and also several cases in which tenotomy of the superior and inferior recti has been resorted to with good results. There is also a description of a new ophthalmoscope, with a single disc, invented by Dr. Knapp of New York.

The otological department is, to our mind, the best part of this number of the Journal, and contains several translations from the German. Among these is a translation of an article by Dr. Wreden of St. Petersburgh, on the Myringomycosis Aspergillina. We here have a most interesting account of this aural fungus, and the symptoms to which it gives rise, this is followed by a case of Myringomycosis Aspergillina contributed by Dr. Charles Burnett, the translator of Dr. Wreden's paper.

The book finishes with an Otological and Ophthalmological review, and at the end are some excellent plates illustrative of various papers in the Journal. The number before us is very well printed in excellent type on good substantial paper, and the "Archives" will, we hope, be a decided success as a quarterly Journal. We should mention that the subscription has been reduced from seven to five dollars per annum, and we may safely say to any intending subscriber that it will be money well spent.

The Cerebral Convolutions of man, represented by original observations, especially upon their development in the Fœtus.—Intended for the use of Physicians. By ALEXANDER ECKER, Professor of Anatomy, and Comparative Anatomy, in the University of Freiburg, Baden. Translated by ROBT. T. EDES, M.D., New York, D. APPLETON & Co., 8vo. pp. 84.

This is an anatomical manual, consisting entirely of accurate descriptions of all the lobes and convolutions into which a normal brain is constantly divided. It is insisted by the author, that for all persons who attempt to record observations in cases of cerebral disease, it is very necessary to have some such topography as would enable them to describe accurately the exact situation of any given lesion. Thus in a purely scientific way the knowledge of some such system of nomenclature would no doubt facilitate work and also render such observations more valuable. But it would be idle to expect that the busy, general practitioner should be willing to expend the time necessary for the study of the name and relations of every separate convolution in the brain.

It displays, however, the great pains that have been betowed upon its preparation. It is illustrated with several good diagrams, and is a complete index of the matter of which it treats.

Periscopic Department.

On the Concentration and Sanitary Regulation of the Business of Slaughtering in Cities. By STEPHEN SMITH, M.D.

(Read before the Public Health Association of New York, June 11th, 1874.)

One of the first questions which sanitary authorities, newly organized in our cities, have to meet and answer is:—"How can the nuisance created by the ordinary slaughter-house be most effectually abated?" The conclusion which is generally reached is, that a stringent ordinance will remedy the evil, and accordingly, the opinions and purposes of the Health Authorities are embodied in the form of an ordinance, somewhat as follows:

"That every butcher, leasing or occupying any place, room, or building where any cattle have been, or are killed or dressed, or where any cattle may be kept, and, having power and authority so to do, shall cause such place, room, building, stall and their yards and appurtenances to be thoroughly cleansed and purified, and all offal, blood, fat, garbage, refuse, and unwholesome or offensive matter to be therefrom removed, at least once in every twenty-four hours; and shall, also, at all times, keep all wood-work, save floors and counters, in any building, place, or premises aforesaid, thoroughly painted or whitewashed."

But it is found by painful experience that in spite of this declaration the nuisance continues; that, in fact, this carefully worded and high-sounding ordinance proves to be but a tuft of grass thrown at the offenders. It is resolved next to enforce this ordinance by prosecution, or arrest, or by both methods. These proceedings possibly secure *more* care on the part of the butcher, but they do not in any proper sense abate the nuisance. During certain portions of the day the yards are covered with liquid ordure, the walls are bespattered with filth, the drains are choked with refuse matters; and however thorough the cleansing may be, the walls, floors and areas become so saturated that during the remaining portion of the twenty-four hours the whole establishment reeks with foul odors in the summer sun.

After a protracted struggle with this nuisance, stimulated by public censure, it will prove a fortunate circumstance if the health authorities reconsider their action, and adopt a policy more in accordance with the dictates of good sense and of wise sanitary administration.

The slaughter-houses of any city must be placed on the same basis as the markets, so nearly are they related to the public health. The business has always been recognized as offensive, and on that account amenable to municipal regulations. But there is a far more important sense in which they should be regarded as subject to special control, viz.: as the medium of food-supply to the people. Considered in their two-fold influence upon the public health, *first*, as sources of filth, and *second*, as liable to furnish impure meats, health authorities should exercise the most rigid supervision in regard to the details of their management. How can such supervision be most advantageously exercised? We answer:—by the concentration of the business in well-appointed abattoirs. These establishments should be so located, constructed and conducted as to secure the utmost degree of cleanliness, and the most direct and complete oversight by sanitary officers. We may thus state the advantages of concentration:—

1. *Facilities would be afforded for the thorough inspection of cattle and meats.* It is of the first importance as a sanitary measure that there should be ample facilities for the intelligent inspection of the cattle to be slaughtered, and of the meats to be exposed for sale in the markets.

The temptation to slaughter diseased cattle in large cities is very great, and the opportunities offered are abundant when the business is entirely unregulated, and free from the surveillance of competent sanitary officers. In every city where no restrictions upon the trade exist, there is a class of men who deal in diseased cattle and meats. In the cattle yards they purchase the sick, lame, or injured stock, and in the markets they select the rejected meats, and then retail this unwholesome refuse of the slaughter-house to the poor.

To guard the people against the imposition of diseased meats, the best regulated foreign cities require the careful inspection by expert officers of every animal brought to market. All obviously diseased cattle are sent to the offal yards, and the suspected are detained in yards or stalls for observation. All the meats offered for sale in the public markets must have a previous inspection. In this manner the people are protected from even the liability of receiving unwholesome meats.

But no sanitary inspection worthy of the slightest confidence can be maintained over the meat supply of our markets while the present scattered, unregulated, and practically unlicensed system of slaughtering is continued. Cattle suffering any and every form of disease may pass unnoticed and unchallenged to any of the slaughter-houses, and the carcass may go thence to the market without hindrance.

The only practicable and indeed possible method of instituting an adequate system of cattle and meat inspection is the concentration of the business in large and well-regulated abattoirs. The very incorporation of butchers in such companies, leads to the expulsion from the business of those irresponsible dealers who live by a sort of contraband trade. But the great sanitary feature of the proposed regulation is the rigid inspection of cattle and meats which may be so successfully carried out.

2. *Abattoirs properly conducted, tend to the purity and preservation of meats.*

Fresh meats afford, during the warm summer months of the year, a fertile soil for the development of the germs which arise from decaying or decomposing matter, vegetable and animal. The germs are of course, the most abundant where there is the largest amount of organic matter. When implanted on fresh meat, at a proper temperature, they at once begin to develop, and the meat undergoes putrefactive changes. In certain localities, meats cannot be preserved in the summer, except on ice, for even an hour. And it is

susceptible of demonstration that meat slaughtered in filthy stalls and exposed to the emanations of unclean yards, areas, drains, etc., quickly takes on putrefaction. If we add to this exposure the filth of the slaughter-houses, the additional exposure to the filth of the street, as the cart is driven to market by the butcher, we have the best conditions that could be devised for furnishing the people of any city with unwholesome meats. That such a meat supply is detrimental to the health of the people, there is no doubt. The effect of inoculating a wound, as a cut on the lip, with meat in this stage of putrefaction, is most dangerous, often resulting in violent inflamation and speedy death.

But in the abattoir, we have these conditions changed. All is scrupulously clean; the air is untainted by decomposing organic matter of any kind; the meats are hung up in a cool dry atmosphere.

3. *The large surface area occupied by the business would be diminished to the least practicable space, and the entire territory occupied could be preserved in a much greater state of cleanliness than that of any one of the single establishments now in use.*

It has been taken for granted by some people that if all the slaughter-houses should be concentrated in one establishment, this single establishment will become as many times more offensive as there are slaughter-houses so concentrated. This view is not only absurd, but practically the reverse is true. If, for the loosely paved yards, the imperfectly drained areas, the absorbent floors, etc., of existing slaughter-houses, widely scattered, we can substitute a single yard with impervious bottom, susceptible of being thoroughly flushed at all times with water—a building with non-absorbent floors, and equally capable of rapid and thorough cleansing, it is apparent that large and filthy areas now reeking with ordure in the summer's sun, and floors saturated with animal matters, would be entirely removed, and the substitute would be a single limited area, at all times

kept thoroughly clean, and buildings free from contamination.

4. *Concentration of slaughtering will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of work growing out of the business.*

Not the least of the evils arising from the maintenance of numerous slaughter-houses, are those kinds of offensive business, like fat-melting, which are its adjuncts. These trades are carried on by independent operators on their own premises, and always in a most slovenly and negligent manner. The butcher is likely to retain his fat until it becomes putrid, and then it is carried through the streets to the dilapidated fat-melting house where it is rendered with imperfect apparatus; the hides are cured by another small and irresponsible dealer in any old building which he can secure; the entrails, in a state of active putrefaction, are taken by still another dealer through the city to any dilapidated rear building where the workmen can be concealed, and there they are manipulated for days together.

It is frequently urged by those opposed to the abattoir system that there is not sufficient available space in cities for the proper management of the business if it is concentrated. This question has been practically studied recently by Mr. Carl Pfeiffer, sanitary architect with reference to the concentration of the slaughter-houses of New York. From the data which he gives the necessary calculations can be readily made as to the space required for the business of any town. He concludes as follows:

"The space usually allotted to a butcher in most of the slaughter-houses of this city, for killing and hanging cattle, is called a baulk, and occupies a floor space of 10x50 feet, exclusive of yard-room for the temporary storing of the live cattle; for the latter purpose additional space of 15 or 20 square feet is allowed for each animal. One set of butchers in the smaller establishment usually kill and prepare ready for market on an average 25 beeves per day; to kill and dress one bullock ready for market requires 20 to 30 minutes.

A space of fifteen feet in width affords ample room for two baulks, and making each baulk 60 feet deep, would give slaughtering and hanging room for 40 cattle per day; add to this a space of 15x40 feet to be used for a pen, in which the cattle are placed previous to being slaughtered, would give room for 40 to 50 cattle. The space usually allowed for this purpose I have found to be from 11 to 15 square feet for each animal. It appears then that in a space of 15x100 feet ample room is afforded for slaughtering, hanging, and yarding 40 cattle. A block of ground 200x400 feet would afford facilities for slaughtering, hanging, and the necessary pen or yard space of 4,000 cattle per day, or nearly three times the capacity that is required by the butchers of this city during any day for the past year.

At the slaughter-house of the Central Stock Yard and Transit Co., at Jersey City, I found that a space of 15 by 80 feet was required for yarding, slaughtering, and hanging 50 cattle per day. The same company in a space of 300 by 400 feet, afford accommodation for the reception, feeding and watering of 20,000, and the slaughtering and hanging of 5,000 sheep, so that it is safe to assume that in a space of 200 by 300 feet 5,000 sheep can be daily yarded, slaughtered, and hung up, which is more than is required by all of our butchers in this line of business. During the past year the daily average of sheep-slaughtering in this city has been 3,300, so that in the same space sufficient room would be left to do all slaughtering of calves required. This the sheep and calf slaughtering, is mostly done in the second stories. For hog-slaughtering a space of 1,312 square feet is required for a tub and bench for one set of slaughterers, and 2½ square feet of hanging room for one hog; if the baulks for hogs are made in double tiers, one above the other, then two hogs can be placed in a floor space of 2½ square feet. One set of hog-slaughterers usually kill and dress 200 hogs per hour, and, five hours being their working time, one set of men deliver 1,000 hogs per day, or one-fourth of the number of the entire daily supply furnished by all the

butchers. Assuming then a ground space of 200x350 feet for a hog slaughtering-house two stories in height, the upper floor to be used for yarding and killing, the lower for dressing, weighing and hanging; the upper floor containing 70,000 square feet, and each hog requiring less than 7 square feet, there would be room for more than 10,000 hogs. Assuming the lower floor to have a central space of 60 by 350 feet, room would be afforded in this for 16 tubs and benches, and 16 set of slaughterers. On each side of this central space would be 70 by 350 feet of hanging room, capable of having 400 baulks; each baulk being 70 feet deep, would afford hanging room for 42 hogs, and the 400 baulks would hold 16,800 hogs, or more than four times as much as required by all the hog-slaughterers of New York.

The above demonstrates that all the slaughtering of cattle, sheep, and calves required by the slaughterers of New York can be done in a building 300 x 400 feet, and the hog-slaughtering in a building of 200 x 300 feet. These buildings could have basements where there would be ample room for the salting of the hides and collecting all offal. A building of 100x100 feet, 3 stories in height, and a basement fitted up with the most approved apparatus would be sufficiently large to admit of the fat-melting and rendering being done for all of the slaughterers' offals. In addition to the meat supplied by the New York butchers, the Central Stock Yard Co., slaughtered at their abattoir at Jersey City for the New York market during the past year, 200,000 cattle, 300,000 sheep, and 600,000, hogs, and from personal observation and survey I have found that this abattoir is worked to less than one-half of its capacity, and could do all the slaughtering to supply the demands of the New York, Brooklyn and Jersey City markets.

The abattoir also demonstrates that in a large establishment the slaughtering is more readily supervised, and the whole business done more systematically and more cleanly; in fact, so cleanly that nothing offensive is perceptible, owing to the superior sanitary precautions that have been taken in

the construction and the constant enforcement of proper regulations, which experience has proved almost impossible to enforce in a large number of small establishments scattered over a great part of the city."

In the light of the preceding discussion we can but conclude that the interests of the public health demand that the business of slaughtering in all our American cities should be concentrated at the most available point for cleanliness and economical management, in one or more abattoirs according to the necessities of the trade. The common slaughter-house is a nuisance against the public health (and public morality) which should be abated wherever it exists. —*The Sanitarian.*

Practical Notes on Cutaneous Subjects. By TILBURY FOX, M.D., LONDON, F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital.

IX—SYPHILITIC TUBERCLES ABOUT THE NOSE.

I have seen strange mistakes, made in regard to the nature of specific indurations or tubercular formations about the nose. The occurrence of syphilitic inflammation or infiltrations in circumscribed spots about the nose, constituting the sole syphilitic cutaneous manifestation present, is not uncommon. The favourite seat of these infiltrations is the hollow formed by the junction of the ala of the nose with the cheek. These formations may be as small as, and even smaller than, a split pea, or as large as an almond or larger. There may be one or several. Generally speaking there are one or two packed together. In some cases the nose about its tip or side, or in both situations, appears enlarged from excess of tissue; whilst it is at the same time redder and hotter than usual, and distinctly indurated to the touch. More rarely the general enlargement of the nose is excessive. The tubercles, or the more general enlargement, may be the seat of ulceration or crusting.

No such condition as the last described could be the result of simple inflammation. The syphilitic disease begins and progresses slowly and indolently; and the enlargement is due to the formation of a fleshy-like mass, firm and reddish —a neoplasm in fact. The neoplasm in the form of a tubercle or a more diffused infiltration is firm, not very vascular; it *tends* to crust freely and to ulcerate—characters that bespeak its syphilitic nature. The lupus neoplasm is softer, more vascular, gelatinous-looking, and, if small, does not crust, except in strumous subjects, but is covered by thin scales, which are closely adherent; and, further, the tubercles are not multiform, save but very rarely. But the diagnosis is further set at rest by the discovering of some concomitant syphilitic lesion of the throat or the tongue, by the presence of nocturnal bony pains, &c., although there may be no additional evidence of skin syphilis.

These syphilitic tubercles are often taken to be acne indurata spots; but they have none of the characters of an inflamed sebaceous gland, and especially no central aperture indicative of the follicular opening; they are primarily solid (new) formations, and they tend to ulcerate and leave pits behind on their disappearance, unlike ordinary acne spots. I have seen many cases of these syphilitic tubercles or slight infiltrations about the nose which have been treated for a long time without any benefit because their nature was not recognized; but if the fact of the disease beginning as a new formation be attended to, the observer will be at once put upon his guard against error, and many a patient will be saved from ugly ulceration and deformity of the ala of his nose by timely treatment.

X.—UNCONSCIOUS SCRATCHING.

I am convinced that sufficient attention is not paid to the evil effects of scratching upon skin diseases which are accompanied by pruritus, and especially by such as may be termed unconscious scratching—i.e., that which is practised

during the night. To the case of old people suffering from pruriginous affections these remarks particularly apply. I was recently consulted by a gentleman in his fifty-eighth year, who had been greatly distressed and worried by an attack of cutaneous pruritus, for which he had failed to get relief, and which he aggravated greatly by savagely excoriating the skin with the nails, thereby inducing a crop of what is known as pruriginous papules (inflamed follicles and papillæ in a state of excoriation) The cause of his malady was over-work and want of fresh air no doubt; this, however, is not the point I want to notice, but the effect of scratching during sleep practised perfectly unconsciously upon himself. He told me that his mornings were miserable on account of the burning and soreness he felt in his skin. He imagined that he had exacerbations of his disease in the mornings; but I observed that each morning the skin appeared to be more than usually excoriated, and on requesting his wife to watch his doings at night, it appeared that he was in the habit of almost continuously scratching himself in various parts of the body when in sound sleep. He had no idea that he habitually so scratched his skin; but attributed the ill effects of the scratching to an aggravation, natural as it were, of the disease. The disease in his case was speedily cured, though it had lasted some time, by anointing the body with simple oil, and tying the hands in gloves, so that the nails could inflict no injury upon the skin when he was not watched in the night. The case illustrates the importance of attending to "little matters" in the treatment of skin diseases, and especially in regard to scratching.

[illegible]

As instances of syphilitic pemphigus are [illegible] I am persuaded [illegible] the narration of the following case, which came under my observation in March, 1873, will be followed with interest.

The patient was a [illegible] sent to

me by his medical man from the country. He informed me that he had "had a great deal of worry and trouble of late," and had suffered much from "migrain." The disease for which I was immediately consulted attacked him first in October, 1870, about the hands and feet, and the interior of the mouth was so badly affected that he "could not eat anything," and the patient added that "the throat was awfully bad." He had been attacked by seven outbreaks in all, including the one I saw. The outbreaks kept him in bed for a fortnight, and left him in a very weak and depressed condition. When any outbreak was severe, the patient suffered from intense headache, during its height for about twenty-four hours. He had been subject to neuralgic pains, and occasionally to rheumatic pains. He had been very low-spirited. The body had never been attacked by the eruption: the penis, however, had suffered of late.

The last attack began on March 6th by a little speck on the centre of each hand, the patient being very low and weak. The lip became sore on its outside and "broken." On March 8th another spot appeared on the thumb. On the 11th other spots had appeared about the fingers, and the first which came had assumed the aspect of little bullæ; the gums had also become tender, and the spots on the 14th had reached the size of a large split-pea. On the 15th the patient felt so weak that he had to go to bed; the throat got very sore and the bullæ filled with bloody fluid and looked like black grapes. The feet now became affected. On March 20th the patient was still in bed; headache came on and lasted all day, and the man suffered from great pain in the limbs and febrile disturbance. He got up on the 24th of March (eighteenth day of disease) for the first time since he took to bed. When I saw the patient on March 28th—that is, the twenty second day of the attack—there were about sixteen bullæ on each hand, of various sizes and different stages of evolution, some being much indurated at their bases and some freely coated over; and about ten

on each foot. The patient's tongue exhibited white patches and fissures on the sides, and there was also evidence of syphilitic ulceration about the throat on each side. His wife was confined of her first child in February, five weeks before her expected time, and the child only lived two days.

Remarks—I base my diagnosis of syphilis upon the general state of the patient, which showed that he was to some extent cachectic; upon the frequency of the attacks of headache; the occurrence of rheumatic and neuralgic pains, especially about the head; the evidence of syphilitic mischief in the throat and about the tongue; the seat of the bullous eruption—viz., the soles of the feet and the palms of the hands; the indolent character of the eruption—viz., the slow development of the bullæ, their tardy progress, the presence of sanious contents, and particularly the induration left behind by them; upon the premature confinement of the wife with what was practically a still-born child; and lastly, the effect of anti-syphilitic treatment in relieving the patient.—*Lancet.*

The Internal Administration of Phosphorus.

The difficulty of finding an appropriate vehicle for phosphorus in its medicinal uses has long been recognized. Balsam of tolu has lately been suggested for this purpose. Experiment has shown that four grains of phosphorus are perfectly dissolved by ninety-six grains of washed tolu, if melted together under water and well stirred.

The preparation so made, when examined microscopically, does not show any particles of undissolved phosphorus, and when seen in the dark, and rubbed between the fingers, it gives off a perfectly equally distributed light.

This preparation may, therefore, be formed into pills, with every confidence in the equal distribution and activity of the phosphorus.—*Medical and Surgical Re*

Turning after Craniotomy. *By* S. WORDSWORTH POOLE, *M.D. Aberd., L.R.C.S.E.*

A Case like the following is happily uncommon in the practice of a country surgeon, as an experience of above 3000 assures me, and its perusal may afford some useful lessons to those who are not yet perfect in the obstetric art.

On the 10th of April last I was called to see a very diminutive person in the ninth month of pregnancy, a primipara, and thirty-two years of age. There were present slight pains, and a sanious discharge, but the os was impervious to a catheter, the cervix being small, with merely a depression in its centre. The brim of the pelvis was blocked up by an unyielding bony mass, simulating the fœtal head as it might lie when firmly impacted. The diagnostic difference was this, that it was continuous with the coccyx and sacrum. This discovery led to an examination of the spine, which was found to be deeply incurvated below the loins. The legs were found to be greatly deformed, the tibiæ being enlarged and bowed inwards. Yet the husband was ignorant of the distortion of the figure, and it was not till some days after her death that he told me he remembered that she always took care, when dressing and undressing, to have her limbs concealed from his view.

On the 12th the nurse showed me veritable brain-matter escaping from the os, which, however, was not open enough to admit the point of the forefinger. The pains were still very slight and infrequent; the pulse was good, and the mind cheerful, and so I deemed it prudent not to make incisions and bring on delivery until I saw what could be effected by nature through powerful uterine efforts. These supervened on the 14th, and about six hours after I attended her, and found the os large enough to admit one finger, and just within it was a piece of jagged bone, evidently part of the cranium. The promontory of the sacrum was very [illegible] to the pubis, not an inch and a half apart, but the [illegible] roomy enough. As the history was clearly that

of rickets, not osteomalacia, I could not hope for any yielding of the bones, and anticipated the worst result.

The woman was put under chloroform, and the delivery at once proceeded with. Barnes's bags, so often useful, were here out of the question, as the head would have prevented their insertion, at any rate their retention ; so with a hernia knife I made three incisions, and extricated the presenting bone, twisting it off with the fingers. The craniotomy forceps were then fixed, and the crochet was passed inside the cranium and made fast to a distant point, and by drawing on the two simultaneously the head was pulled down as far as possible, but the scalp constantly gave way, and the bones had to be twisted and removed in fragments, chiefly by the fingers.

After an hour and a half the whole cranium was delivered, and operations were delayed to give both patient and attendants a rest.

As it seemed a very uncertain undertaking to fix a blunt hook in the axilla, and thus drag down the trunk, I passed the left hand, as being the smaller, slowly through the os and brim, and attempted to grasp a foot, employing external version at the same time. Though my hand is small, it was impossible to rotate the wrist, which was painfully gripped between the sacrum and pubis, and a foot could not be seized. I then introduced the right hand and caught one foot, which was drawn through the outlet, and the blunt hook fixed over the opposite groin, after which the delivery was tolerably easy. The state of the fœtus may be judged of from the fact that, on moderate traction on the thighs, the skin gave way and became completely inverted over the foot.

The placenta was firmly adherent, and for a third time the unfortunate creature had to be subjected to the introduction of the hand. She suffered no pain, however, being completely anæsthetised for three hours. The uterus contracted well, and there was not the slightest hæmorrhage. For forty-eight hours after delivery the pulse remained at

120, and then fell to 100, and the urine kept constantly dribbling away. There seemed some chance of recovery until the fourth day, when tympanites and vomiting set in, and the patient rapidly sank. On examining the vagina there was found a good deal of sloughing.

Though I do not reproach myself for the fatal termination of this case, it is pretty clear that a better chance would have been afforded had the fœtus been turned before extracting the skull; indeed, it seems evident to me that but for one great risk—namely, the giving way of the neck, and consequent leaving the head in the womb, this method would be best after craniotomy in all cases where version was possible. In the above instance it would have answered, though the risk would have been considerable from the decayed condition of the fœtal muscles and ligaments.

As a country surgeon is not often able to make public his opinions, I take this opportunity of expressing mine on the question of craniotomy *versus* the induction of premature labour, which is always causing some discussion, though I am at a loss to comprehend how any educated man in his right mind can take the side of the former. I conceive my experience of both sufficient to warrant me in stating that the latter is quite as safe for the mother as the former, and that an accoucheur who deliberately neglects to induce labour at or about the seventh month, knowing that the only alternative is perforating the skull, is guilty of infanticide.

It does not very frequently happen that a patient's estimation of the advantages of the operation can be so markedly expressed as in the following case, which was published in *The Lancet* some four years ago. A woman having a pelvis two inches and a half in the antero-posterior diameter had been delivered of six still-born children, some by version, some by forceps, some by craniotomy. I induced labour at six months and a half. The child was born alive, and lived three years. The mother emigrated to America, where

she was delivered again at the ninth month of a dead child, to her own great risk, and she is now on her way home to undergo the same proceeding which resulted so happily for her before.

With one other remark I shall conclude. I have found chloroform to be the best if not the only preventive of laceration of the perineum so common in primiparæ over twenty-five, whether the forceps are employed or not.—Sidcup, Kent. *The Lancet.*

On Strapping the Chest in Phthisis. By JOHN MCCREA, M.A., M.D., Medical Officer to the Belfast Dispensary.

The treatment of phthisis by restraining chest-movement deserves more attention than it has yet received. Partly for this reason, and partly to describe the appliance which I have latterly found most effective, I wish again to direct inquiry to the subject.

In the large number of cases which have come before me in the practice of the Belfast Dispensary, I have seen no remedy equal strapping the chest in efficiency and general applicability. At the same time the use of other remedies is not interfered with. The plasters used in strapping are quite able to bear the strain of walking and talking, so that gentle exercise and conversation are not forbidden; and, indeed, I have seen both rendered enjoyable where they had previously been irksome. I have not met with a case in any stage of the disease in which there was ground for attributing any bad result to the restraint of the chest. I say this because a paper on the subject threatened grave consequences if cases were not most thoughtfully selected after an exact measurement of the proportion of lung involved. An extensive trial has convinced me that this dread is a dream and this refinement finical.

Since writing a paper which appeared in the November number of the *Dublin Journal of Medical Science,* I have made an improvement in the apparatus, which diminishes

the frequency of the renewal of the plasters and strengthens their grip. The following description contemplates their application to the upper part of the chest. I have principally used emplastrum roborans spread on swan's-down. The sheet, which is half a yard wide, is to be cut into transverse strips. Each strip is eighteen inches long; the breadth should be about three-quarters of an inch. The plasters should be only very slightly heated. The first strip runs up the back in the space between the spinal column and the posterior body of the scapula on the affected side, its starting-point being well below the level of the inferior angle of the scapula. It is to be applied gradually and deliberately, every portion being well rubbed in before the next portion is brought into contact with the skin. It is to be carried over the shoulder and down the front of the chest. In rounding the shoulder it is to be pulled tight and held so while it is being, bit by bit, brought into contact with the front of the chest, the chest just at this period being in the act of strong expiration. The next strip, which is horizontal, commences at the spine, crosses the posterior end of the first strip, passes under the axilla and on towards the sternum. It also is to be applied deliberately and with friction; as it is rounding the chest it is to be pulled tight, the patient at the same time making a forced expiration. Other strips are to be applied in a similar manner, vertically and horizontally time about, until it is judged that a proper grasp of the chest has been obtained. I avoid the scapula as much as possible, Some of the horizontal strips should cross the sternum, and some the spine. A large rectangular piece of plaster should now be applied, occupying the inter scapular space and reaching down to the last dorsal spine. Another squarish piece is to cover the front and upper part of the chest between the clavicles and mammæ. These, if smoothly applied, secure the ends of the strips from ruffling up, and give additional *points d'appui* Finally, the whole is to be well rubbed in all over. The patient is sit quiet for a few minutes before dressing. The plaster

soils the fingers, which, however, may be easily cleaned by rubbing with coarse paper and washing with a few drops of ether. The length of strip required of course depends upon the size of the chest and the extent of the disease. I always endeavour to control more of the lung than the portion apparently diseased. I have found it generally suitable to cut the plaster as above described. If too long, that may be easily remedied with scissors as each strip is applied. If too short—if, for instance, a vertical plaster beginning on the back does not reach sufficiently far down the front of the chest, let the next vertical plaster commence its course in front and at a sufficiently low point, and then be made to cover the former. This, besides, increases the rigidity of the apparatus, and rigidity undoubtedly is one source of its power.

In a fortnight a reapplication will probably be required. This will give a good opportnnity for a careful examination of the condition of the lung. While the plasters are still on the indications of the thermometer will be most valuable. If there be an exacerbation of the symptoms, particularly of the cough, dyspnœa, or pain, if the temperature rise, or if the plasters be obviously slack, apply new ones. In an advanced case of phthisis in a girl, the girl's mother told me that she herself could tell the proper time for renewal by observing the cough become distressing at night; and, indeed, it is common for patients to ask for a reapplication. This illustrates, besides, the confidence felt in the plasters by those who have had experience of their effects. In early phthisis it is necessary to warn the patients not to mistake the amelioration of their symtoms for recovery; they should always be directed to come back. Possibly when they consider themselves quite well the thermometer or the stethoscope will indicate differently. These are the cases in which, by reapplications, repeated reapplications if necessary, we may hope for the most brilliant results.

In the paper already referred to I have related a few cases, selected with the aim of illustrating the effects of

this line of treatment in different stages of the disease. We obtain immediate and marked diminution of the cough, cessation of pain, relief of dyspnœa, and reduction of temperature; and the patient usually expresses at once a feeling of great comfort. In short, I am so satisfied with the results of the numerous cases in which I have tried this method that I give it the first place among all the remedies for phthisis.

Papers on the subject—Berkart on "Rest," &c., THE LANCET, Oct. 18th, 1873; a letter from myself in the following number of the same journal; my paper in the *Dublin Medical Journal*, Nov., 1873; Dobell on the "Importance and Dangers of Rest in Pulmonary Consumption," in the *British Medical Journal*, Nov. 22nd, 1873.—*The Lancet.*

The treatment of Corns and Bunions.

In a lecture reported in the *Medical Press and Circular*, Mr. Ormsby, F.R.C.S., said on this subject:—

The treatment of these two affections agrees very much in at once removing the tight boots and undue pressure, and soft pliable leather shoes recommended, applying simple cold-water dressings to the painful bunion; in the inflammatory stage, if suppuration occurs in its cavity, it should be cut into by early incision. To prevent undue pressure various methods have been suggested from time to time; a round piece of leather or condensed piece of wool having an adhesive side next the skin, and a round hole cut out of its centre to receive the corn or bunion, and this then applied round the periphery of the swelling; this, no doubt, is a very useful plan, but act, as it may do, most efficaciously for a time, it is only palliative, and does not effect a permanent cure. The topical application of nitrate of silver produces a hardened black portion of epidermis over its summit; this, after a time, gets detached, and you can peel it off, and when this is removed touch it again with the nitrate

of silver, and so on until all traces of the callosity disappear. I have over and over again tried this plan, and it has seldom failed in my hands, but it must be persisted in. Chiropodists, a class of people who think themselves very clever, profess to take a "corn out by the roots," a most unscientific observation, to say the least of it, and in reality all they do is, by a patient and gentle paring process, remove a great part of the thickened cuticle, and recommend a well-fitting boot, and simply by removing the cause it often effects a cure. You must also bear in mind that a very loose boot is nearly as bad as a very tight one. Glacial acetic acid is also recommended to be applied after the callosity has been well softened by keeping the feet in warm water for a short time. When the callosity occurs in the sole of the foot and a circumscribed enlargement is seen, if directions are given to a bootmaker, he can make an allowance in the sole and form a slight depression, so as to prevent undue pressure to the foot; in fact, boots of any dimensions and shape can be made by an intelligent bootmaker to suit any deformity occurring in the toes or feet. Well-made boots prevent much annoyance and deformity, while badly-made and ill adapted boots are a very frequent cause of deformity, corns, bunions, limping, etc. Another distortion often seen is what is called *Hammer-Toe;* it is caused generally by wearing boots of insufficient length, and the toes are bent up and considerably flexed to accommodate themselves to their cramped position; after a time the flexor tendons become permanently contracted, and the toes assume a form not unlike the appearance of a hammer, hence the name; the great, second, and last toes are most often affected.

Treatment.—To recommend longer boots, and allow the toes space to travel forward. Tenotomy of the contracted flexor tendons may be resorted to, and a spring-pad attached to a sole of leather or other light material, and the toes bent forcibly down and bandaged to this sole, which may have slits in it corresponding to the interdigital spaces, which facilitate the bandage passing between the toes and keep them permanently extended.—*Medical and Surgical Reporter.*

Varicella and Variola.

The relationship of these two complaints was discussed by a correspondent of this journal some months back. Professor Henoch, of Berlin, in a paper recently published in the *Klinische Wochenschrift,* argues strongly in favor of their radical diversity. He says:—

"It is not singularities that settle the matter here, not the circumstances that individual vesicles of varicella have a central depression, and that their contents may become purulent. Taken altogether, the differences are always so marked, that, to me, a perfect separation of varicella from the variola group seems indispensable. Compare the exception of scarlatina, which in almost all cases commences as a diffuse erythema, but, under very severe cutaneous inflamation, is often enough mixed with papules or with vesicles, which may even have puriform contents. In spite of this, the disease is still scarlet fever. Just in the same way I regard these exceptional cases of chicken-pox. Two cases came under my care in private practice, in circumstances which to me were decisive. Two sisters, both vaccinated, were ill with varicella at the same time; one had the disease in a severe form, having a strong fever, with severe headache, and the body thickly covered with vesicles, some of which underwent purulent change; the other had no constitutional symptoms of importance, and only a very few clear watery vesicles. In another family, a child three years old, who had been successfully vaccinated, was so severely ill that I should have been misled, had I not seen the eruption of clear vesicles. In a fortnight, the elder brother had a very mild attack of vesicular chicken-pox. The extension of the disease among the grown members of the family, or of the household, such as often occurs in variola, was not observed in one of these cases."

These views strike us as very just. All the exanthemata have these exceptional appearances.—*Medical and Surgical Reporter.*

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1874.

VACCINATION EXTRAORDINARY.

The anti-vaccinationists, headed by the irrepressible Dr. Coderre, have just had a new sensation. There is in this city a certain Dr. Roy, of whose existence not many persons have been until recently aware. A short time ago he vaccinated an infant, and not being satisfied with the result wrote a letter to the great champion of non-vaccination, who accordingly found a mare's nest at once, and heralded the same to his confiding compatriots in a long communication to the *Minerve* newspaper. The facts are briefly as follows. On the 26th June an infant thirteen months old was vaccinated by Dr. Roy from lymph obtained from Dr. Larocque, one of the Health Officers. On the 27th, the child became extremely feverish and had severe diarrhœa. On the 9th July there was enlargement of the *inguinal* glands (which Dr. Roy tells us with the greatest *naïveté*, he mistook for an inguinal hernia !). At this time when the pustule had formed and was commencing to dry, he applied a firm bandage over the part, and subsequently on removing the bandage, was surprised to find the scab sticking to this and a rather nasty sore left behind. The description of this sore in the above-named paper must be taken *cum grano salis* as emanating from the excited imaginations of rabid opponents of the practice. Shortly after, the sore cicatrised and the child was well. But so much had been said about it, and such perniciously erroneous ideas were

likely to be entertained by the public concerning the bearing of these garbled facts as thus presented, that it was thought advisable to call together a committee of medical gentlemen of various shades of opinion, to hear the evidence and give an intelligent verdict concerning it. Accordingly, on the 2nd August the following gentlemen met at the parent's house to institute the necessary enquiry, viz: Drs. Larocque, Dugdale, Howard, Rottot, Ricard, Trenholme, Mount, Desrosiers, Lussier, Craik, together with Drs. Roy, Gauthier and Coderre. Having examined the child, and enquired into the case, the following resolution, which was moved by Dr. Howard, seconded by Dr. Mount, was adopted.—Resolved "That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of opinion that there has been no proof of such being the case."

Now this case, instead of being what the Coderre school have been trying to make the public believe it is—a terrible instance of the dire effects necessarily following upon this dangerous operation—is instead, simply an instance of the manner in which casual and coincident illness is readily by ignorant, or greedily by prejudiced persons, attributed to an antecedent circumstance with which this has no connection as a cause. The vaccination was performed at a time when diarrhœa—generally with more or less febrile reaction—was excessively prevalent amongst children in this city; these symptoms occured the *day after* the vaccination was performed, and yet we are asked to believe that these symptoms are to be referred to the entrance into the system of a morbid poison of some sort—Credat Judæus. Next we are told there was enlargement of the inguinal glands; now, the pustule being on the arm, how are we to believe that any deleterious agent from this point is to pass over the axillary glands, and fly to those so far remote? Besides, what sort of confidence can we place in the descriptions and observations of one who does not hesitate to tell us himself that for a whole day he was under

the impression that he was dealing with a hernia! Moreover, as a matter of fact, the child was admitted to have previously suffered from some inflammatory trouble about one knee-joint. Besides, as suggested by Dr. Howard, the profuse diarrhœa would almost certainly be accompanied by excoriation of the parts about the perineum; and this is recognised as a common cause of such adenoid swellings.

Dr. Roy appears to be a person content with an infinitesimal amount of personal experience to have enabled him to become an anti-vaccinationist for, according to his own statement he is individually utterly unacquainted with the practice. He says "Having for some time followed the animated discussion regarding vaccination I was longing for the day to come to prove the good or bad effects of vaccine." His devout aspirations were answered at last. An unfortunate infant was entrusted to him to vaccinate—happened to take ill the following day and lo! Dr. Roy has solved his problem and proved to his own entire satisfaction that vaccination is the arch-enemy of human life!

We should be only too glad if every case of this kind could be submitted to a tribunal of the same character. Then we should not find Dr. Coderre in a position to refer triumphantly by name to this one and that one and the other whom he boldly asserts have fallen victims to what he calls vaccine-poison, every one of which cases we have not the slightest doubt, if examined into by intelligent physicians, would have been traced to their true cause.

McGILL UNIVERSITY.

The following changes have recently been made in the teaching staff of the Medical Faculty of McGill University. Professor Drake has, owing to ill-health, been obliged to retire from the performance of the active duties of his responsible position as teacher of Institutes of Medicine. He will still, however, retain his Professorship. Dr. William Osler has, in consequence, been appointed by the

Faculty as Lecturer on Physiology and Pathology, and will begin his course at the opening of the session in October next. There can be no doubt that through the retirement of Professor Drake, the Faculty have lost one, who from the very commencement of his teachings, has proved himself to be a thorough master of the difficult and now complex subject treated of, and at the same time to be endowed with the gift not in the possession of every one, of imparting to others the knowledge acquired by oneself. We particularly regret to observe the cause assigned by Dr. Drake for his withdrawal, but we hope, and have every reason to believe, that by the increased rest he may thus enjoy, he will find his health completely restored. We must congratulate the Faculty upon the choice they have made of a successor. Dr. Osler graduated at this University with much credit to himself, and at that time the evidence he gave of previous devotion to original physiological research were such as to deserve and receive the highest encomiums from the Dean and Professors. Since then he has been unremittingly employed in the pursuit of physiological knowledge in the laboratory of Prof. Burdon-Sanderson, in Berlin, and in Vienna. We are certain, therefore, that Dr. Osler will be well-fitted to give instruction in every branch of recent Physiology.

Dr. Fuller, having resigned as Demonstrator of Anatomy, the position has been filled by the appointment of T. G. Roddick, M.D., late House Surgeon, Montreal General Hospital.

ENCYCLOPEDIA OF THE PRACTICE OF MEDICINE.

We have received an announcement of the intention on the part of William Wood & Co., of 27 Great Jones street, New York, to publish by subscription a translation from the German, of a work which is about to be issued from the press of that country. The work consists of a series of

independent treatises by a number of the most prominent clinical teachers in Germany. It is to consist of fifteen volumes, and, we should imagine, the names of the authors, many of whom are eminent in their speciality, will be sufficient to ensure the success of the undertaking. This certainly is an age of bookmaking, but works of this character can hardly be classed under such a heading. When we announce the names as contributors of Merkel, Traube, Rindfleisch, Kussmaul, Schroeder, &c., it should be sufficient guarantee of a work in every way in keeping with the very eminent positions held by these gentlemen in the scientific world. From the announcement it would appear to be a work on the same plan as that of Reynolds, or of Holmes' Surgery. Vol. 1, which is to embrace Public Hygiene, and diseases of special trades or professions, will be edited by Prof. Giegel and Drs. Hirt & Merkel.

Vol. 2, on Acute Infectious Diseases will be prepared by no less than 12 Medical Gentlemen, each man taking up and discussing a separate subject, and so on throughout the series of fifteen volumes.

We wish Messrs. Wood & Co., every success in their undertaking, and can only remark in conclusion that if carried out on the part of the authors with that spirit which their names would imply, it will be a most valuable addition to the literature on the subject. Messrs. Wood & Co., being desirous to publish the work by subscription, request the names of intending subscribers to be sent in to their address without delay.

We have received from Dr. Wheeler a specimen of his "Compound Elixir of Phosphates and Calisaya, a Chemical Food and Nutritive Tonic," prepared after the formula of Dr. Dusart of Paris. It contains Lactophosphate of Lime, Lactophosphate of Iron, Quinine, Quinidine, and Cinchonine, together with free Phosphoric Acid. It has an agreeable flavour, and cannot be objected to by the most delicate palate, and from its composition it will probably be useful in most cases where a Quinine and Iron Tonic is indicated. The addition of the Phosphates and Phosphoric Acid probably increase its value and efficacy as a nerve tonic and food. Altogether, this is the most satisfactory preparation of the kind, that we have hitherto met with.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS

Objections to some of the recent views upon the Pathology of Tubercle and Pulmonary Consumption, being the Address in Medicine read before the Canadian Medical Association, on the 5th August. By R. P. HOWARD, M.D., L.R.C.S.E., Professor of Theory and Practice of Medicine, McGill College.

Gentlemen of the Canadian Medical Association:

As you have generously left to my own choice the subject in medicine upon which I am to address you, I have selected one which because of its great importance and of the differences of opinion respecting it that exist among the leading minds of our profession, seems worthy of the occasion.

I ask your attention and indulgence while offering some observations upon the remarkable views that have been recently propounded upon the Pathology of Tubercle and Pulmonary Phthisis.

Perhaps the most startling pathological doctrine advanced in modern times on respectable authority is that miliary tubercle and so-called tuberculous infiltration are due to the absorption of the *caseous* detritus of the products of some pre-existing local disease as a pleurisy, pneumonia, scrofulous gland, diseased bone, abscess, fistula, etc.,—that tuberculosis is *either* an *absorption* disease nearly allied to pyæmia (Waldenburg) or a specific *infectious* disease like small pox (Burdon-Sanderson).

More or less closely connected with this new doctrine, but not necessarily arising out of it, is the old thesis ed in a modified form, and because of his able advo-

cacy of it, usually associated with Niemeyer's name, to the effect that the ordinary form of chronic phthisis pulmonum is of inflammatory origin and due to a so-called "caseous pneumonia," which may be induced by a *catarrhal* bronchitis or the local irritation of blood poured into the bronchial cells in pulmonary hemorrhage.

As these views are of overwhelming importance, in view of the practical consequences which must inevitably follow their establishment, I venture to raise some objections to them for the consideration of the members of this Association.

The *absorption* theory of tubercle rests mainly upon the interesting experiments initiated by Villemin in 1865 and subsequently confirmed and extended by Andrew Clarke, Burdon-Sanderson, Wilson Fox, Waldenburgh, Cohnheim, and others. These experiments revealed the important fact that in the Guinea pig, and in some other animals, the inoculation of tubercle, pus, putrid muscle, etc., of tubercle which had lain several months in alcohol, or had been submitted to the action of fuming nitric acid, or of carbolic acid, will produce *primary* lesions at the site of inoculation and *secondary* lesions in the internal organs, which appear to be identical with tubercle. Even the local irritation of a seton of cotton or of silver wire will produce similar effects in the Guinea pig.

Now, lest these inoculation experiments upon animals should be assumed to have proved more than they have—let it be borne in mind (1) that every animal has its own special organization and probably its own special aptitudes as regards diseased action; and (2) that it has yet to be shown that the inoculation of tubercle or other material is capable of producing lesions identical with tubercle in the several organs of the human body.

(3.) Clinical experience does not show that the irritation of setons or issues is causative of tuberculous disease in man.

(4.) Local suppuration when productive of secondary

remote lesions in various parts of the human body tends to develop pyæmia, with its peculiar metastatic deposits, or amyloid disease of the viscera—not, I believe, tuberculous disease. I regard this fact as strongly opposed to the inoculation doctrine. The very condition, chronic suppuration, as seen in necrosis, or caries for example, and which resembles so closely the action of a seton, is the very condition which is recognized as *the* cause of amyloid disease of the liver, spleen and other organs.

(5.) It is asserted that pleurisy and especially chronic pleurisy frequently causes consumption.

Now Dr. Blakiston watched for some years the course of 79 cases of chronic pleurisy with the following results—10 were lost sight of—of 16 it was only known that they were living—and of the remaining 53 *not one* had become phthisical. Dr. Payne-Cotton's experience and Dr. Flint's is opposed to the view in question and coincide with Blakiston's. M. Aran and M. Siredey both contend that the autopsies of empyemic subjects show that tubercle is more frequently absent than one might expect.

Dr. A. Attimont's researches give 80 definite cures out of 130 cases of empyema, many of which moreover had been watched for a long time. And in 29 autopsies of empyema tubercles were absent 20 times and present only 9 times. If so many persons recovered perfectly from empyema, and if tubercle was found but 9 times in 29 cases, it certainly does not appear probable that empyema can be a very frequent cause of pulmonary tubercle.

When tubercle appears to have followed an empyema or a pleurisy, several explanations may reasonably be offered of the relationship: Tubercles may have existed in the lungs or pleura at the time of the invasion of the inflammation—or, as was admitted by Trousseau, a predisposition may have existed, which the local inflammation developed into actual disease.

(6.) If there are not sufficient grounds for asserting that the absorption of the products of pleurisy causes the

formation of tubercle, what about other local inflammatory affections?

Much importance cannot be reasonably attached to the statement of Troltsch, that purulent otitis not rarely precedes tuberculous meningitis, and even general tuberculosis, when we reflect how common an affection otorrhœa is in childhood.

(7.) It has been claimed that *fistula in ano* may initiate tubercle. But let it be noted that according to Pollock, and such has been my own experience, "the phthisis is the earliest affection," although it "occasionally happens that the fistula precedes all symptoms of consumption." Indeed, the same authority remarks that "in the larger proportion of cases it [the fistula] is found in the *third* stage, next to this in the second.

Now, if the absorption of corpuscular products from abscesses, ulcers, etc., may induce tuberculous disease, how comes it that a *fistula in ano* is, according to Pollock *never associated* with *acute* phthisis? the very variety in which the tubercle par excellence (miliary tubercle) of Virchow is present? And that the existence of anal fistula in chronic consumption appears to *prolong* the duration of the pulmonary disease, instead of causing it to extend and take an active course through the constant absorption of the inflammatory products?

(8.) Disease of the *bones* is regarded as one of the pathological conditions likely to produce tuberculous disease.

To show that disease of the bone is far from constantly or even frequently a cause of consumption, I would cite M. Coulon, who in 130 children suffering from scrofulous disease of bone found only three that had phthisis.

Mr. J. W. Hayward, writing upon another subject, gives some facts which appear to me corroborative of the view I am defending. "Of 85 consecutive cases admitted into the hospital for sick children for various tubercular affections, in only *one* was there any bone or joint disease."

"Of 134 cases of chronic bone or joint disease of which" he "took notes in the Hospital for Sick Children, in only 9 was there any sign of tuberculosis, and but 17 displayed other signs of scrofula."

Of 790 cases of *bone* and *joint* disease in adults and children admitted into St. George's Hospital, disease existed in other parts in 80 instances only, or in about ten per cent., and it may be safely assumed that the co-existing disease was not in every instance tuberculous.

(9.) There is one affection especially characterized by a tendency to caseous degeneration of the lymphatic glands which because of its frequency ought, if the absorption thereby be true, to be found very frequently associated with consumption. What are the facts?

Mr. B. Phillips taking enlarged glands with sinuous ulcerations and enlarged joints as diagnostic of scrofula, found scars resulting from scrofulous abcesses in only 7 out of 352 cases of phthisis. Dr. E. Smith, in 1000 cases of consumption, found that only 12.8 % (not 13 per cent.) had suffered from enlarged glands.

Of 1973 cases examined at Brompton Hospital for consumption only 3.8 % (not 4 per cent.) had scrofula.

Dr. Flint writes, "I have collected a number of cases in which young and middle aged persons presenting the characteristic cicatrices on the neck were free from tuberculous disease of the lungs; and on the other hand, it is extremely rare to find these cicatriees in persons who are affected with pulmonary tuberculosis." Such also is my own experience.

But the supporters of the doctrine that tubercle results from the absorption of caseous products rely also very much upon the fact that the able advocate of the theory, Fuhle, having carefully examined 23 cases of acute tuberculosis found *in all but one* or *two* masses of caseous matter, which he assumes to have *preceded* the tubercle.

In reply it may be urged that Wilson Fox has always found the histological elements of tubercle in the walls of

the air cells when caseation was present. That Dr. Schüppel, writing in 1872 upon tuberculous disease of the lymphatic glands, concluded that in all cases, caseous scrofulous glands are the seat of *true tubercles*, and that the caseation is due to the necrosis of the tubercle." That Dr. L. Thaon, writing in 1873, throws great doubt on the existence of any true cheesy inflammation independently of the tuberculous granulations, and concludes that cheesy inflammations are as much manifestations of tuberculosis as the grey granulations (miliary tubercles) themselves; a conclusion almost the same as that entertained by Wilson Fox. And that quite recently, Dr. Friedlander has stated that "though caseous deposits *are* found in *nearly* all cases of disseminated tuberculosis; *in some* a most careful examination has failed to detect them. And moreover, such deposits are so common that they are found in the bodies of 50 % of all adults who have died from any cause. And though the proportion of such deposits is much greater in cases of disseminated tuberculosis, it must be remembered that a very large number of these deposits are actually the *result* of local tuberculosis, all caseous glands for example; * * * * * * "and that we have quite as much right to consider that certain forms of local tuberculosis dispose, even after their relative healing, to the origination of disseminated tuberculosis, as to assume with Buhl that this is due to caseous infection."

Having in my own opinion, shown that the Absorption, theory of the production of tubercle suggestive by the inoculation experiments upon animals is not borne out by clinical experience, nor rendered probable by unanimity of opinion amongst histological authorities, I turn to the other doctrine that the ordinary form of chronic plumonary consumption is of inflammatory origin and due to pneumonia.

This is indeed a question beset with difficulties and upon which the ablest pathologists take sides, and I therefore claim your indulgence while venturing to speak upon the subject.

Most clinical physicians will admit, I doubt not, that ordinary acute (croupal) pneumonia in the great majority of cases runs a short course, its products are completely removed, and no ulterior damage follows. It is admitted that occasionally, though but rarely, this form of pneumonia induces abscess or even gangrene of the organ, but even then the disease can be distinguished from ordinary chronic phthisis.

But it is *catarrhal* pneumonia that the new school of pathologists, ably represented by Niemeyer, Waldenburg, Buhl, and others assert, originate and constitute the most frequent form of chronic consumption, and that miliary tubercle has nothing to do with it and is very frequently absent.

Now I submit that this question cannot in the present state of conflicting opinions and observations amongst histologists, besettled upon histological evidence. Need I remind you of the discordant views expressed by the able men who took part in the debate upon tubercle in the Pathological Society of London last year? The out-come of that discussion was, in my opinion, that the *microscope* does not enable us to distinguish tubercle from the products of lobular pneumonia and from other products which may closely resemble it. Nay, histologists are not agreed as to the histological characters of tubercle itself; and I have before mentioned that they differ as to the relationship existing between tubercle and caseous masses in the lungs; some contending that caseous material may exist without tubercle, but that tubercle results from the absorption of caseous products, — others that wherever caseous materials are present in the lungs tubercle coexists; and others, that caseous inflammations are as much manifestations of tuberculosis as miliary tubercle itself.

Histological evidence then being unsatisfactory we appeal to *clinical*.

After what has been said, it may be asserted with confidence, that in a given case unless the physical signs, the

symptoms, and the whole clinical history during life were those of catarrhal pneumonia, the existence of caseous masses in the lungs could not fairly be taken as proof that the disease was pneumoniac and not tuberculous.

Now the clinical features of catarrhal pneumonia differ from those of ordinary chronic phthisis.

Thus, (*a*) Rokitansky says that catarrhal pneumonia affects children chiefly and is "of rare occurrence in adult life," and Niemeyer himself observes that "we may very properly call it a disease of childhood." The converse is true of chronic phthisis; it but rarely occurs in children, it obtains pre-eminently in adult life.

(*b.*) The chronic form of catarrhal pneumonia is so infrequent that Buhl has lately questioned its existence, and it is met with chiefly, almost solely, in connexion with measles, hooping cough and capillary bronchitis. The same cannot be affirmed of chronic phthisis.

(*c.*) While the statement that a well developed paroxysmal cough accompanied in a few days by expectoration, or at least by the evidence of considerable secretion from the broncho-pulmonary membrane, and plainly explained by the physical signs of bronchitis, is almost invariably true of catarrhal-pneumonia—the statement that short cough or a mere hem, unaccompanied by expectoration for weeks, and either not accounted for by physical signs at all, or by physical signs differing in several respects from those of bronchitis and catarrhal pneumonia, is equally true as a general rule of chronic phthisis.

(*d.*) The physical signs of chronic consumption in the early stage are not those of catarrhal pneumonia. Thus in the former there shall exist for weeks and even months simply feeble respiration or harsh respiration with prolonged expiration and a shade of diminished percussion resonance at the apex of one lung without either whistling or bubbling râles — indeed these may never ensue; and the other apex and the bases of the lungs shall present no signs of disease. Broncho-pneumonia on the other hand, is pre-

ceded by the physical signs of bronchitis — the signs are distributed more or less symmetrically over both lungs, but predominate at the bases of those organs.

In view of the fact that histological examination cannot be relied upon, and that clinical evidence does not support the statement that either croupal or catarrhal pneumonia is apt to terminate in or constitute chronic phthisis, it may be concluded that Niemeyer was wrong in maintaining that chronic phthisis usually originates in inflammation of the lungs.

Admitting that ordinary lobar pneumonia sometimes ends in softening and ulceration of the lungs; that chronic bronchitis sometimes becomes complicated with induration, and that the indurated portions may slough or ulcerate; and that catarrhal pneumonia sometimes is followed by ulcerative destruction of the lungs, yet these issues are so infrequent relatively to the frequency of lobar pneumonia, chronic bronchitis and catarrhal pneumonia respectively, that they cannot reasonably be regarded otherwise than as *exceptional*, and not as the natural course of these affections.

The great fact which nearly all pathologists admit in some form, that a predisposition to pulmonary consumption, inherited or acquired exists, and which has led to the disease being placed amongst the constitutional affections, seems to prove that there is something special and peculiar to the disease which distinguishes it from simple inflammation of the lungs, whether croupal or catarrhal.

Burdon-Sanderson, while applying the facts of animal inoculation to the pathology of consumption in man, admits this *latent phthisical* bias. Virchow and his followers, including Niemeyer, admit that the predisposition to the so-called "caseous" or "scrofulous" pneumonia which the latter regards as the nature of most cases of chronic consumption, is "inherited" as "a vulnerable constitution."

It is this bias or a tendency in the individual that conditionates the peculiar characters and course of the hyper-

plastic or the inflammatory process, whichever it is, that produces consumption — and its recognition is equivalent to the admission that the so-called "caseous" or "scrofulous pneumonia" of ordinary phthisis is peculiar and essentially different from pneumonia occurring in persons free from the inherited or acquired tendency in question. It is this inherited, or perhaps acquired, mode of vital action — this constitutional bias — that causes a bronchitis or a pneumonia to take on peculiarities which distinguish it from ordinary bronchitis or pneumonia. The bronchitis or pneumonia becomes the agency of developing the latent tendency in the individual.

But I must stop lest I overtax your patience. I have attempted to show that it has not been proved by an appeal either to histology or to clinical observation, that tubercle or consumption may be produced in the human subject by the absorption of caseous and other products of inflammation, as it appears capable of in rabbits and other animals. And I have also attempted to show that clinical observation is opposed to the doctrine that ordinary chronic pulmonary consumption consists of simple pneumonia, either croupal or catarrhal, and that if the local process is inflammatory it is at least of a peculiar or specific kind, and to be designated by a distinctive name such as "caseous," or "scrofulous," or tuberculous." It has its own symptoms and signs, runs its own peculiar course, recognizes its own causes and pathology and demands its own therapeutics.

But it does not follow that we may neglect or treat as trivial a bronchitis, an intestinal catarrh, a chronic abscess, or a fistula. Nor do I wish to deny that inflammation plays an important rôle in consumption, infiltrating the pulmonary substance in the neighbourhood of the tuberculous disease with materials prone to degenerate, but simply to maintain that the great majority of cases of chronic phthisis are *not* cases of, and do *not originate* in either lobar or broncho-pneumonia.

Montreal, 31st July, 1874.

Since this paper was read I have seen a notice of Buhl's recent monograph upon "Inflammation of the Lungs, Tuberculosis, etc.," and have been much interested on observing that, contrary to the teachings of Niemeyer and his school, he states that neither croupous nor catarrhal pneumonia ever gives rise to phthisis. However, he has described a third form of pneumonia not previously mentioned by pathologists, under the name of "Desquamative pneumonia" the highest degree and the commonest form of which he calls "caseous pneumonia," and regards it as constituting one of the commonest forms of phthisis.

Not only does Buhl agree with the writer that neither croupous nor catarrhal pneumonia passes into consumption, but in opposition to Niemeyer he denies that "caseous pneumonia" ever originates in the catarrhal or croupous form, a view which is in harmony with the tenor of this address. Of course it remains to be seen whether pathologists will accept and confirm the existence of a third variety of pneumonia — the "desquamative" — distinct and different from the croupal and catarrhal forms.

Montreal, 19*th Aug.*, 1874.

Correspondence.

EDINBURGH, AUGUST 6th, 1874.

To-day I visited the Royal Infirmary, by the invitation of Mr. T. Annandale, and had an opportunity of seeing that gentleman perform an operation for cleft palate. In this case, the greater part of the hard palate was deficient, and the gap was fully as broad as the finger. A great part also of the soft palate was deficient. The gag was used and the patient placed under chloroform, and the operation was begun by seizing the point of the uvula on the left side, putting it on the stretch, and then, with a pointed bistoury, transfixing it at the apex of the cleft, and removing the free surface of the mucous membrane, down to the extreme edge of the uvula. The other side was pared in the same manner. A fine incision was then made on either side down to the bone, running close to the teeth. The operator then raised the whole flap and periosteum as far as the edge of the cleft, with the scraper,—thus he obtained two large free flaps, which were readily, united with sutures. The silver wire suture was used and Mr. Annandale stated that he usually left the sutures in for ten days or a fortnight. After the sutures were introduced the flaps appeared to fit accurately without the least tension. Mr. Annandale does not consider it necessary to divide the muscles on either side, according to the practice of some London surgeons and he remarked that he had never seen any trouble from non-union in part, necessitating a second operation, nor any difficulty with the bone so freely denuded of periosteum. He also showed me a case of disease of the knee-joint in a child of about four years old, in which he purposed performing excision on

the following day. I regret that my arrangements would not allow me to remain another day in Edinburgh, and I left for London that evening. In conversation with Mr. Annandale, I mentioned, that, in excision of the knee joint in young subjects, I had removed with a fine saw, a thin slice of bone, sufficient to take away the diseased ends without removing the entire epiphyses. He said that he had done the same himself on several occasions, using a knife for the purpose, with the most happy results. This must be looked upon as a gain in operative surgery, as it is all important to save a portion at least, of the epiphyses.

LONDON, AUGUST 8th.

This afternoon I went to King's College Hospital as I understood that Sir William Fergusson would be there and would be sure to operate, and as I had a great desire to see him wield the knife, I went early. There were not many present, and the operators were Mr. Henry Smith, who removed, with the knife, a portion of the tongue for epithelioma, and Professor Wood. Mr. Wood performed lithotomy on a female, and as his operation was somewhat novel, I will describe it. After introducing a sound and satisfying all present, by an audible click, that a stone was present, he passed a straight grooved sound into the bladder. The groove was held well inclined to the left side and a fine, long, straight bistoury was then passed into the groove, and on into the bladder, and the parts were then incised in a somewhat curved direction outwards and downwards, passing to the outer side of the vagina. The wound was, in reality, funnel-shaped, the small end being at the neck of the bladder. The finger of the operator was inserted with ease, and he then introduced a pair of lithotomy forceps, and with a little traction and quiet manipulation he removed a stone the size of a hen's egg, composed apparently of lithic acid, with a coating of

phosphates. After the removal of the stone, two wire sutures were inserted, one near the meatus urinarius, and the other midway in the incision. After the patient was removed, Mr. Wood made some very excellent remarks, and drew a rough diagram on the black-board illustrative of the different styles of procedure in this case. He said the patient had suffered from the disease for more than two years, and that she had been most heroically and persistently treated during that period for ulceration of the os uteri. She had even been an inmate of a hospital for diseases of women, and although he did not question at

the time existence of uterine disease, yet the treatment was not followed by amelioration of the symptoms. Here he would remark, that this case illustrated the fact of every day occurrence, that surgeons devoting their time exclusively to any specialty were apt to overlook symptoms pointing to the existence of other ailments, and in consequence failure to give relief was the certain result. He had been requested to see this patient some short time since, and he discovered by careful examination that a stone of considerable size existed in the bladder, sufficient in size and hardness to give an audible ring, which was heard by every one in the theatre. With regard to the operation he might state that he believed it had been seldom, if ever, performed, except in this theatre, and then only by Sir William Fergusson. It would be observed that his operation simulated somewhat, the lateral operation in the male. He divided freely the cellular tissue outside of the vagina and thus had a broad surface for subsequent union, and avoided the chance of having a vesico-vaginal fistula as the vagina was not incised, The muscular fibres of the urethra were incised in one direction only, hence there was less likelihood of incontinence of urine following the operation. He believed that in the operation for fistula in ano, when the sphincter was divided across at two points, incontinence of fæces would follow, if however, only one incision was made across the sphincter, it would regain its power retaining the contents of the rectum. So also in this operation, the sphincter muscle, so to speak, of the urethra, was incised at one point only, and therefore it would regain its tone. To prevent the urine from trickling over the wound, he would direct his patient to lie on her face.

Afterwards, Sir William Fergusson performed excision of the knee joint. The patient was a young man, comparatively robust, who had been suffering for some time from disease of the knee joint. Esmarch's bloodless method was employed, and chloroform administered, and the oper-

ation begun in the usual way. The patella was removed with all the synovial membrane, which was very much thickened, and the end of the femur and the upper part of the patella were found extremely denuded of cartilage. All the vessels, which were small were ligatured, the limb adjusted on a splint, and then the edges of the wound brought together by sutures. The whole was done in such a way as to give the spectator the idea that the operator was a perfect master of his art. Before putting up the limb, the bones were accurately adjusted and Sir William found it necessary to remove a thin slice of bone from the back part of the femur. After the removal of the patient Sir William Ferguson made a few remarks concerning the case. He subsequently operated on two cases for caries of the tarsus, gouging out the diseased bone and dressing the parts in the usual way, — with oiled strips of lint. After the removal of the patients, he exhibited two cases of successful result, after operation for cleft palate. In one case. he said that he had almost regarded cure hopeless, as the gap was so large, and also there was (what appeared to me to be) the co-existence of a double hare-lip. The results in both cases were satisfactory.

G. E. F.

MONTREAL, 20th AUGUST, 1874.

To the Editor of the Canada Medical Journal:

SIR,—In the July number of your paper a copy is given of the proposed bill "To Amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec and to regulate the sale of Poisons." Nothing can be more satisfactory than the general tenor of this bill, since there are few matters of greater consequence to the public and to the medical profession than that a proper guarantee of efficiency should be given by those who undertake the

responsible duty of dispensing medicines. To the druggists the bill will no doubt be welcome, as tending to elevate their social and professional standing. Much has been said of the injustice of a practice hitherto common among physicians, namely, the practice of recommending some particular druggist, and yet so long as there is a possibility that a prescription may fall into the hands of some ignorant person, the prescriber is clearly justified in sending his patient where he believes the danger is least likely to occur. It is true that most, if not all the gentlemen at the head of the various establishments in this city are perfectly well qualified, yet it is no less true that in many shops persons are employed who are quite unfit to be entrusted with a prescription, and it is a matter of fact that such persons have occasionally, during unusual pressure of business, or during the absence of their superiors, been allowed to act as dispensers. This is not only a wrong to the public but is an injustice to those employers who pay high salaries to secure efficient assistants. At first sight, every necessary guarantee on the above points appears to be afforded by the 15th clause of the new Act. It reads as follows: "And it shall be unlawful for any druggist, etc., "to employ any clerk or apprentice in any shop or store "for the sale of such poisons or in the *dispensing of medi-* "*cines*, except such clerk or apprentice be registered as "required by this act." It would appear then that registered apprentices, or as they are termed, "certified appren- "tices," are permitted by the wording of the above clause to dispense prescriptions, and as the qualifications necessary for registration as an apprentice are merely that he shall have a good moral character and a fair knowledge of English, French, Latin, and Arithmetic, (see clause 7) he is clearly not a proper person to be entrusted with the duties of a dispenser. I would therefore earnestly beg that this oversight may be corrected and that the clause be amended so as to make it an offence punishable by fine for an employer to allow any one not registered as a certified

clerk or Licentiate of Pharmacy to compound or dispense physicians' prescriptions.

Yours truly, Y.

MONTREAL, 31st August, 1874.

To the Editor of the Canada Medical and Surgical Journal.

SIR,—You will confer a favor on your professional brethen in the Dominion if you will suggest with what satisfaction the bestowal of some Imperial honor upon a member of our profession would be received by the medical public of Canada.

When we consider the important services done to this our country by a class of men inferior to none in loyalty to Her Majesty's person and Government, men whose moral and intellectual influence has been felt from one end of the Dominion to the other, we consider that such an honour conferred would have a great influence for good on the profession at large.

We have amongst us at present one who is in every way worthy of the honour and dignity of Knighthood—I allude to Dr. Geo. W. Campbell, who, for his long and faithful services as a Professor in McGill College, his great success as a surgeon, his universal kindness in rendering assistance to every member of the profession, his untiring interest in the advancement of the Science and Art of Surgery, would seem in every way the most worthy recipient.

If, Sir, you will through your Journal make this suggestion generally known amongst the profession so that any necessary steps may be taken for the furtherance of its object, you will greatly oblige, amongst others,

Yours very sincerely,

M. D.

Proceedings of Societies.

CANADA MEDICAL ASSOCIATION.

The seventh annual meeting of this Association was held at Niagara Falls, Wednesday, 5th August, 1874.

The President Dr. Marsden, called the Meeting to order at 11 o'clock.

There were present Drs. Marsden, Quebec; Botsford, St. John, N.B.; Canniff, Toronto; Hingston, Montreal; Trenholme, Montreal; Yeomans, Mount Forest; Grant, Ottawa; Robillard, Montreal; H. H. Wright, Toronto; McDonald, Hamilton; Thorburn, Toronto; Thompson, Montreal; David, Montreal.

The Minutes of the last day's proceedings of the meeting of last year were read and confirmed.

Drs. Grant, Hingston and Wright were requested to take seats on the platform.

Dr. Canniff, Chairman of the Committee of Arrangements, reported as correct the credentials of Dr. A. A. Thompson, of Lansing, Michigan, and Dr. Edward Jenks, President of the Detroit Medical College and Professor of Diseases of Women, &c., &c., &c., as delegates from the American Medical Association, and Dr. H. P. Yeomans, Mount Forest, as delegate from the Union Medical Association of South Gray and North Wellington, and the President accorded them, in the name of the Association, a cordial welcome.

Letters of excuse for not being present were read from Drs. Dawson, C. C. Hamilton and Howard.

The President then delivered the following address:

GENTLEMEN:—Were I to consult my own inclination, I would not occupy any portion of the brief space of time allotted to your Annual Meeting by an address, but, as the tyrant custom requires it, I must conform, and will be

concise as possible. I will avail myself of the earliest opportunity which presents itself to thank you for the honor you have conferred upon me, in electing me your President, but I regret that language fails to express the depth of my feelings. It has often been my good fortune, during my long professional career, to have been complimented in a similar manner, but never in the same degree. When I see around me so many distinguished members of this Association who would have filled this chair so much better than myself, and when I look back and remember your —I mean our—happy choice of the able and eloquent chairman who presided over our deliberation during the first three years of the existence of this Association with so much tact, talent and success—the Hon. C. Tupper, M.P. C.B., &c.—I feel all the more inability to do justice to the office without your kind indulgence, although I will yield the palm to no man for professional zeal—my maxim having ever been, where the public interests of our noble and humane Profession were at stake,—*Semper Paratus!*

One of the subjects that will engage the attention of this Meeting is the proposed alterations of the By-Laws. The Committee appointed at the 5th Annual Session of the Association, held at Montreal, in September, 1872, to amend the Constitution and By-Laws, reported to the Annual Meeting held at St. Johns, N. B., on this day twelve months past, and recomended, "that the Plan of Organization of the Canadian Medical Association adopted at the Conference of the Medical Profession held at the city of Quebec, October 1867, and the Code of Medical Ethics, be continued without amendment;" and further recommended, "that a Constitution and By-Law be adopted instead of those heretofore in force." A copy of the labors of that Committee is now before you, entitled, "proposed alterations to By-Laws to be considered at the Annual Meeting at Niagara Falls, Wednesday 5th of August, 1874.

Having carefully examined the proposed alterations I am of opinion that they will be a great improv-

present By-Laws, with some slight changes and additions.

In Ethics, for example:

It is proposed "to continue the Code of Medical Ethics without amendment," but no provision has been made in the proposed By-Laws for a permanent Committee on Ethics. Such a committee is in fact a necessity, to which, in my humble opinion, all cases of presumed infraction of the Code should in the first instance be referred for report before any public action is taken by the Association. or record made. This would prevent the odium which might attach to persons falsely charged; and would avoid the needless wounding of the sensibilities of such as were really innocent of the accusations brought against them.

So strongly was I impressed with this conviction, that I gave notice of motion in 1870, and, on the 14th Sept., 1871, carried a motion unanimously, and it was resolved, "that the Nominating Committee be instructed to name a Permanent Committee on Ethics, to be composed of ten members, representing each province of the Dominion." The Session, however, adjourned so soon after that no Committee was named at that Meeting. I would therefore respectfully recommend that, as it is proposed to continue the Code of Ethics, a Standing Committee on Ethics should also be added to the proposed By-Laws.

Registration, Medical Statistics, and Public Hygiene are all subjects which call for action, with a view to Legislation.

Committees were named at the first meeting of this Association, held on the 9th and 10th of October, 1867, at Quebec, to report on the best means of obtaining these desirable objects. The Committee of Registration, of which I had the honor to be Chairman, reported, "that, after mature deliberation, they recommend, that this Association take the necessary steps to have carried through the [illegible] Legislature an Act similar (in so far as it is [illegible] country) to the Medical Act of Great Bri-

The Committee of Medical Statistics and Hygiene (both of which subjects were referred to the same Committee) reported on Hygiene alone, through Dr. Hingston, the Chairman, stating, "That there was a necessity for a comprehensive system of sanitary laws," and promised a report on Vital Statistics at a later period of the Session. A reference to the Minutes of the Association (so far as attainable) shows that nothing whatever has been done in the way of Legislation in this matter.

Another Committee on Statistics and Hygiene was named at the Annual Meeting of 1873, held at St. John, N.B., of which Dr. Botsford, one of our indefatigable, intelligent, and zealous ex-Vice-Presidents is Chairman. He wrote to me on this subject in March last, as follows :—"I was named as one to bring the matter of Hygiene before the Dominion Legislature, especially looking to a registration of deaths and their causes, through the whole Dominion. For the Province of New Brunswick I have to report that, whilst Boards of Health are provided for every county, and a registration of marriages for the Province, this is all that has been accomplished; and a registration of deaths and their causes does not exist!"

Although, Gentlemen, I quite concur in the sentiments expressed by Dr. Workman in his address of welcome at our second Anniversary Meeting, that "neither the elevation, nor what is styled the protection of our profession is to be achieved by acts of Parliament,—and, that if we would be elevated, we must climb the steep ascent ourselves," yet there are certain subjects that demand legislation before we can make any useful application of them. Among these, I class Vital Statistics, Registration, and one uniform system of preliminary and professional education, examination and licensing. Committees have reported on all these subjects, and their reports have been adopted; and, as Dr. Tupper said in his address at Ottawa in 1870, a far higher step has been taken by resolving that it [illegible] or the interest of the public and the Profe[illegible]

common portal of entrance should be established for the purpose of granting licences to practice."

Precisely the same opinions have frequently found utterance in the meetings of our elder sister, the American Medical Association, as will be seen by a reference to their transactions, from which, had time permitted, I might profitably have made some extracts. This is a subject that has occupied the best attention of various Committees since the formation of this Association, and resulted in the forming of the "Contemplated Medical Act for the Dominion of Canada," which was amended at the third Annual Meeting of the Association, held at Ottawa in September, 1870. It was again amended at the Annual Meeting held at Quebec, in September, 1871, and was finally referred to the Annual Meeting held in Montreal in 1872, each and every member of the Association having received in the meantime a printed copy of the same. This proposed Act has been a bone of contention—an apple of discord—to the Association ever since it was first introduced. In the Western Province of the Dominion, gentlemen, you have an Act based upon the English Medical Act, which is working most satisfactorily. The Province of Quebec, also, has an Act that needs very little amendment. The Eastern Provinces, however, of Nova Scotia and New Brunswick, which are younger in Medical Science and Literature, and have hitherto been almost without medical schools, are not so far advanced in medical sciences as the older Provinces of the Dominion, and are not ready to enter on the same platform as their elder brethren, and, therefore, at the Annual Meeting, held in 1872, it was resolved unanimously, to postpone the further consideration of the proposed Bill for two years. Thus it has been suspended, like Mahomet's coffin, between heaven and earth, for two years past, and will possibly come up for action at this meeting. Doubts have been expressed by lawyers, as

slators (and by no less an authority than Dr.

egislative powers of the Parliament of the

Dominion to pass any Medical Act for the whole Dominion, unless, or until previous concerted action had been taken by the Local Legislatures; and to this opinion I strongly incline. In the American Medical Association progress is being steadily made in that direction by State legislation, and I think the best thing we can do is to agitate the subject in each Province of the Dominion, and separately and gradually lead them up to the highest standard required.

Thus only can we hope to suceed in Dominion Legislation. I would, therefore, respectfully suggest that, when this matter comes up, some member will move that its consideration be indefinitely postponed and thus put an end to a fertile source of discord. Let us carefully avoid all medical legislative action for the present, for to my mind no greater blunder could be committed in this democratic age, than seeking legislation, as the sympathies of legislators generally, and especially the unscientific who compose the majority, are in favour of quackery and free-trade in medicine. Another subject, Gentlemen, to which I would call the attention of this Meeting is the great loss that the Association has sustained by the non-publication of the Minutes of its proceedings for the past two years. Whether the Association has the means to publish the Transactions, Reports, Proceedings and other papers or not, the Minutes of our proceedings, at least in opinion, out to be in the hands of every member of this body. I trust we shall this day repair our error, and make any necessary sacrifice to publish them. The valuable unpublished papers which have been presented, read, and approved by this Association, and which must have cost their authors much study, valuable time and trouble, remain a dead letter,—a dumb record—a sealed book to the whole medical and scientific world. For this seeming neglect I know not whether the accomplished and industrious writers, or the reading members of the Profession at large have most reason to complain. Although this

Association was organized for the protection of the interests of the Medical Profession, and the maintenance of its honor and respectability, it also contemplated the advancement of its knowledge, and the extention of its usefulness; and shall it be said of us, that we have done nothing to promote these high and laudable objects because our transactions embrace none of the essays and papers which for originality, learning and profound research would be worthy of honorable place in any similar volume? Let us, gentlemen, this day, I repeat, wipe out this reproach, and either publish them, or return them to their respective authors, for such action as they may see fit to adopt, for nothing should be kept back or hidden in this progressive age. Progressive did I say? Yes, progressive! And it would be very easy did time permit, to shew the wonderful strides that medical art has made even in our own days. It has been raised from the level of a mere conjectural science to the status of a positive art. Mental agony and physical torture have now succumbed to bloodless and painless operations. Operations which formerly no amount of moral or physical courage could have induced the sufferer to submit to, are now endured with complacency.

Chemistry is a new science.

Were it possible to weld the link in the mortal chain which was so suddenly snapped asunder on the morning of the 29th of May, 1829, at Geneva in Switzerland,—or to revive the mortal spark in the poor boy of Penzance, Cornwall, who was a popular lecturer on Chemistry to the Royal Institution, London, at 22 years of age,—or to bring before this Meeting him who for seven successive years was the unopposed President of the Royal Society of London, Sir Humphrey Davy, he, like Rip Van Winkle, would find all the ancient landmarks swept away by the progress of that science which his genius had done so much to fructify and embellish. He would be a student still, Gentlemen, as we all ought always to be.

Notwithstanding the extraordinary strides that have been

made of late years in the Medical and Surgical arts and sciences, and the accessory branches of knowledge, and although the rewards are by no means equal to the responsibilities of the medical practitioner, nevertheless his sterling worth is not unfrequently recognized and requited.

Mr. Gladstone, at the dinner of the British Medical Association last year, paid a just tribute to our art, and said that but for the care and watchfulness of a succession of able physicians it would have been impossible for him to have gone through the fatigues of public life. It is, said he, among the wonderful and noble distinctions of your noble, illustrious Profession that, although its members may not receive that acknowledgement which awaits the soldier when he falls on the battle-field, yet they are to be found in countless numbers among the truest martyrs in the cause of humanity. He further said truly, that medical knowledge has advanced in recent years in a degree which is not, perhaps, paralleled in any other profession. There is at present a greater and more sustained earnestness of purpose, and a more general exaltation of the aims of medical men. And he concluded thus :—This age is distinguished by an unbounded activity in all the sciences of observation. Of all these sciences yours is the noblest. It is given to you to study the relations between the wonderful body and the still more wonderful soul and mind of man. You tread that borderland in which the two come in contact. It is very easy to describe the post office or the railway system, but you have to deal with a thing far more subtle when you attempt to grasp human nature as a whole. Human progress is not to be described by formularies. It is only by the most patient observation that a sound and comprehensive knowledge on such a subject can be acquired. To you it belongs to seize the great opportunities and to accept the great responsibilities which attach to the Profession of which you are members, and to show yourselves worthy of the great vocation with which you are entrusted.

Apologising for having occupied so much of your valuable time, and again thanking you for the high honor you have conferred upon me (probably as a recognition of the part I took in originating and organizing this Association) I leave its perfection in your hands, Gentlemen, and in your hands it is safe. It is, I firmly believe, destined to promote the blessings of fraternal harmony, professional unity, and successful self-government. An Association such as ours—composed of Scientific Philanthropists—the residents of the frozen North and the sunny South; the denizens of the forests, hills and dales, lakes and islands of a whole continent, animated by the most lofty and honorable impulses, casting their various and opposite opinions and prejudices together on the common altar of science, and uniting in one independent, cosmopolitan band, from Prince Edward Island to British Columbia—from the Atlantic Ocean to the Pacific, must and will be felt and heard. United, concorded action—no law can resist;—no law-maker can repudiate.

Finally, Gentlemen, when I retire from this chair I shall remember that "the private station is the post of honor," and I beg to assure you that I shall always (whether present or absent) try to uphold the honor and dignity of our noble Profession, and especially of this Association.

When it was moved by Dr. Trenholme and seconded by Dr. Botsford: "That the thanks of the Association be tendered to the President for his address, and that it be referred to the Publication Committee," which motion was carried unanimously.

On the motion of Dr. Canniff, seconded by Dr. Wright, the following gentlemen were elected permanent members: Drs. Baxter, Cayuga; Mullin, Hamilton; H. P. Wright, Ottawa;—and on the motion of Dr. Wright, seconded by Dr. Trenholme, Drs. John Turquand, Woodstock, Hugh McKay, Woodstock; Daniel Clark, Princeton, and D. A. Hart, Montreal.

The proposed alterations to the bye-laws were then brought up and Dr. Botsford moved that they be considered, clause by clause, wnich was done, and were proceeded with as far as the Standing and other committees, and all passed with a few verbal alterations, when the Meeting adjourned for an hour.

AFTERNOON SESSION.

The President assumed the chair at 3.30 p.m. The Minutes of the morning's Meeting were read and confirmed.

On the motion of Dr. McDonald, seconded by Dr. Botsford, Dr. Malloch and Dr. Case, both of Hamilton, were elected permanent members.

The remainder of the bye-laws were then discussed and, with some amendments, all were passed, when Dr. Botsford, seconded by Dr. Canniff, moved, "That these by-laws, as amended, be adopted," which was unanimously agreed to.

The following gentlemen were then proposed and elected as the Nominating Committee: Drs. Grant, Baxter, Clark, Robillard, Hingston, Trenholme, McDonald, Turquand, with power to add to their number.

On the motion of Dr. Grant, seconded by Dr. McDonald, the consideration of the proposed Medical Act was postponed indefinitely.

On behalf of the Committee on Vital Statistics, Dr. Botsford stated he was not aware of any action having been taken.

Dr. Grant moved, seconded by Dr. Canniff, "That, in consideration of the best interests of Medical Science, it is desirable that a Medical conference should take place between the American and Canada Medical Association, at some Central point to be determined upon, and that the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of Medical and Surgical subjects on a common basis," which was c: unanimously. When Dr. Hingston, seconded

ford, moved, "That, in the event of such a conference being determined upon, it would be desirable that the secretary of the Canada Medical Society notify the various local Medical Societies, so that our Dominion might take part in a manner worthy of the occasion, and in keeping with the best interests of Medical Science," which motion was agreed to.

Dr. Trenholme then read a paper on Uterine Decidua, and Drs. Clark, Hingston, McDonald, Grant, Yeomans, Botsford and Sloane spoke on Dr. Trenholme's paper, causing a most interesting discussion.

Dr. Jenks offered some remarks as to the meeting of the two Associations, with thanks for the reception accorded him and his friend, Dr. Thompson.

The Meeting then adjourned till 8.30 p.m.

EVENING SESSION.

The chair was taken by the President at 8.30.

The Minutes of the afternoon session were read and confirmed.

On the motion of Dr. Canniff, seconded by Dr. McDonald, Dr. Mack, of St. Catharines, was elected a permanent member. Dr. Mullin presented to the Association a preparation of the skeleton of a double-headed monster, exhibited drawings of it, and read a lucid and interesting paper on its formation.

Dr. Malloch read the notes of a case of defective development; and, on motion, the thanks of the Association were accorded to Drs. Mullin and Malloch for their interesting papers.

Dr. Botsford exhibited a model of a plan he had adopted for relieving pain in moving patients, explaining the method, and a vote of thanks was given Dr. Botsford.

Dr. Trenholme then replied to the questions that had been put him, in the discussion on his paper, and another very [illegible] discussion took place, and a cordial vote of [illegible]ved and passed to Dr. Trenholme for his paper

and the interesting and instructive discussion it produced, and a request that he would hand it to the Publication Committee.

Dr. Turquand, seconded by Dr. Trenholme, proposed Dr. William Scott, of Woodstock, as a permanent member, —Dr. Scott, was unanimously elected.

Dr. Malloch read a carefully prepared paper on the Contagiousness of Enteric Fever, and a vote of thanks was accorded Dr. Malloch, with the request that it be given the Publication Committee.

The Secretary read a letter from Dr. Rosebrugh, stating that, owing to illness, he had been unable to prepare a paper to lay before the Association.

It now being 11 o'clock, on the motion of Dr. Botsford, seconded by Dr. McDonald, the Association adjourned till 9.30 to morrow morning.

SECOND DAY, THURSDAY, 6TH AUGUST.

The President opened the Meeting at 10.30 a.m..

Dr. W. Scott, of Woodstock, exhibited a pessary of his invention for retroversion and retroflexion of the uterus, explaining its uses and advantages; a vote of thanks was accorded Dr. Scott, and the matter referred to the Committee on Obstetrics.

On motion, Dr. J. Fulton, Toronto, was elected a permanent member.

Dr. Hingston, as chairman of the Nominating Committee, reported the following gentlemen as the officers for the ensuing year:

President	Dr. LeBaron Botsford,	St. John, N.B.
Vice-President for Ontario	Dr. J. D. McDonald,	Hamilton.
" *Quebec*	Dr. J. P. Rottot	Montreal.
" *Nova Scotia*	Dr. Wickwire	Halifax.
" *New Brunswick*	Dr. G. A. Hamilton	St. John.
General Secretary	Dr. David	Montreal.
Treasurer	Dr. Robillard	Montreal.
Local Secretary for Ontario	Dr. Malloch	Hamilton.
Local Secretary for Quebec	Dr. F. E. Roy	Quebec.
Local Secretary for Nova Scotia	Dr. Morgan	Halifax.

Local Secretary for New Brunswick..Dr. Gregory.....Fredrickton.
Committee on Publication.....Drs. Marsden, Peltier, W. Scott.
Committee on Medicine.....Drs. Howard, Sewell, H. H. Wright.
Committee on Surgery.....Drs. Hingston, Canniff, Grant.
Committee on Obstetrics.....Drs. Trenholme, Lavell, U. Ogden.
Committee on Therapeutics, New Remedies, Medical Jurisprudence.....Drs. D. Clarke, Thornton, Fenwick.
Committee on Necrology.....Drs. F. W. Campbell, Grenier, DeWolf.
Committee on Medical Education & Literature.....Drs. Bayard, Parker, Fulton.
Committee on Prize Essay.....Drs. Hodder, Oldright, Craik.
Committee on Climatology.....Drs. Botsford, Larocque, Thompson, Mullin, Turquand.

All of whom were unanimously elected, when Dr. Botsford returned thanks for his election to the office of President.

On motion of Dr. Thorburn, seconded by Dr. Mack, Dr. W. L. Copeland, of St. Catharines, was elected an ordinary member.

Dr. Robillard, seconded by Dr. Botsford, proposed that Halifax be the next place of meeting, ten voted for and ten against, the President gave the casting vote in favor of Halifax, and the question being put it was carried unanimously.

Dr. Botsford moved, seconded by Dr. McDonald, "That the same sum as was voted last year be given the Secretary, and that the Treasurer be paid his expenses," which was carried unanimously.

Dr. Hingston, on behalf of the Auditing Committee, reported having examined the Treasurer's books and accounts and found them quite correct.

Dr. Hingston offered a few observations on the methods of arresting hemorrhage which produced an interesting discussion, on which Drs. Mack, Sloan, Grant, Trenholme, Geekie and Turquand took part.

Dr. J. M. Fraser, London, Dr. Jno. Fraser, Southall, and Dr. Burgen, Welland, were, on the motion of Dr. Thorburn, seconded by Dr. Baxter, elected permanent members.

Dr. David then read a paper,* prepared by Dr. Howard, on the Pathology of Tubercle and Pulmonary Consumption, when it was moved by Dr. Oldright, seconded by Dr. Rosebrugh, and unanimously resolved, "That, while regretting the absence of Dr. Howard, the thanks of this Association be given him, and his interesting paper handed to the Committee of Publication.

Dr. Botsford, seconded by Dr. Wright, moved, "That the thanks of this Association are due and be given to, Messrs. Colburn and McOmber, the proprietors of the Clifton House, for their kindness and liberality in having reduced their fares, and for having given their hall for the Meetings of this Association free of charge," which was carried.

Moved by Dr. David, seconded by Dr. Oldright, it was resolved, "That Dr. Botsford, President elect be authorized to name the Committee of Arrangements for the next Meeting at Halifax.

On motion, the President left the chair, and Dr. McDonald was requested to take it, when Dr. Baxter, seconded by Dr. Thorburn, moved a vote of thanks to the President for his able conduct in the chair, which motion was carried; Dr. Marsden returned thanks.

A vote of thanks was unanimously passed to the General Secretary, the Treasurer, and the other Officers of the Association, and the Meeting adjourned.

A. H. DAVID, M.D., Ed.,
General Secretary.

*This paper will be found at p. 97.

Periscopic Department.

Clinical Lecture on Amyloid and Fatty Liver in Relation to Operations. By RICHARD BARWELL, F.R.C.S., Surgeon to Charing-Cross Hospital.

GENTLEMEN,—I have on several occasions pointed out to you certain cases of prolonged and severe suppuration produced by caries and necrosis or by disease of joints, and have shown to you that in several of these the liver has been plainly and palpably enlarged, sometimes to a very great extent. I will now give you shortly the details of two such instances as a groundwork to the study of the forms of malady which produce this enlargement.

CASE I.—Caroline L——, aged four years and a half, was admitted into Charing-cross Hospital on July 5th, 1870, under the care of Mr. Hancock, with hip disease. The case was severe, and, in spite of treatment, became worse; eight months after admission the child was greatly reduced by excessive discharge from large abscesses extending down the thigh. Mr. Hancock proceeded to excise the head of the femur, but during the operation the bone broke in two places; it was, in fact, a mere shell. The limb was placed on an interrupted splint; the bone reunited; the patient gained in flesh and strength, and left the hospital on June 4th, 1872, with still an open and discharging sinus on the outer side of the thigh, and another at the operation wound.

She was readmitted into the hospital on Sept. 4th, 1872, under my care. The left leg was very much wasted and shortened. Six open sinuses communicated, three with diseased bone at the upper part of the femur and acetabulum, and three lower in the thigh at the places of fracture. She was much wasted and anæmic; the skin of an opaque yellowish hue; the pulse, very small, varied at different parts of the day and night from 98 to 130; appetite bad and capricious. The liver was much enlarged, extending

through a considerable part of the right lumbar and a great portion of the umbilical region; it was smooth and hard. Urine healthy. No perceptible enlargement of the spleen. There was no evidence of tubercle in the lung.

Having watched this child with great care, I concluded that, in spite of the unfavourable condition, it was my duty to propose removal of the limb at the hip. Some time elapsed before consent could be obtained, but late in October it was given.

On Nov. 1st I examined her carefully. She was emaciated to a mere bag of bones, and was evidently weaker. The liver extended to a finger's breadth of the crest of the ilium, thence crossed hardly half an inch above the umbilicus, and disappeared under the left hypochondrium; it was hard but smooth; its shape apparently not changed. No evidence of affection in any other organ.

On the 2nd November I amputated at the hip, and, owing to care in my arrangements and the skill of my assistants, barely an ounce of blood was lost. The child rallied rapidly; a few drawbacks occurred in the first fortnight, but after that her progress was uninterrupted and rapid. She left the hospital on Feb. 6th, 1873.

In April, 1874, I examined this patient, having seen her occasionally in the interval. She was, save for the loss of the left limb, a very healthy, strong-looking girl. The liver was examined both by myself and Dr. Pollock, and was found to be perfectly normal in size, and its functions duly performed.

Caroline T——, aged fourteen, was admitted on the 8th of April, 1873, into Charing-cross Hospital, under my care, suffering from a recurrence of inflammation after old hip disease. The child was greatly emaciated and anæmic; the left hip was much swollen, and around the joint was deeply-seated matter; also the inguinal region was swollen and fluctuated, showing the presence of pus within the pelvis. Several sinus mouths were situated around the trochanter and on the outer side of the thigh. She was treated for six

weeks by rest and tonics, in the hope that such improved condition might benefit, but at the end of that time she was found to be weaker and thinner, while the abscesses, especially that within the pelvis, had become larger. She was then more fully examined. The probe was passed into three or four of the sinuses, and two of these were found to enter a cloaca and so pass to a necrosis situated deep in the head and neck of the femur. It was evident that unless this could be removed the child would die of exhaustion. At this time the liver was greatly enlarged; it extended downward and through two-thirds of the right lumbar region; in the middle line its edge was two fingers' breadth above the umbilicus; it was smooth and considerably indurated. The urine was nearly neutral, and contained phosphates, but neither albumen, sugar, nor any casts of the tubuli; there was no diarrhœa; no enlargement of the spleen could be detected.

July 21st.—She was placed on the operating table, and, chloroform being administered, it became evident that the hip was anchylosed (true anchylosis); but the central parts of the head of the bone being necrosed, and there being a large collection of matter within the pelvis, I nevertheless made a semilunar incision behind the trochanter, as for resection of the hip, sawed through the neck of the bone as close as possible to the pelvis, applied a trephine to the truncated head, and with it cut out the necrosis, perforated the acetabulum, and let out of the pelvis a large quantity of dark-coloured pus.

The child rallied from the operation with difficulty, but after the first few days went on very well, regaining appetite, and beginning to put on flesh, till two months after the operation, when a patient having undergone the operation for ruptured perineum was placed in the same ward. The considerable fetor arising from this case affected her markedly; the discharge, hitherto diminishing, increased; the appetite failed, and she began to lose flesh. Removal to another ward changed all these conditions, and she went

on uninterruptedly well until the 6th of March, 1874, the date of her discharge. At this time the child was comparatively rosy and stout; the liver had very nearly gained its normal size, and its functions were duly performed.

Both these cases are operations somewhat remarkable, especially the latter (for I am not aware that any such has been performed or described); yet it is not to that part of the subject to which I would now direct your attention, but rather to the condition of the liver and other abdominal organs.

A patient who has suffered long from free suppuration, whatever be its origin, falls into a state of considerable cachexia: the body loses much of its fat; the skin becomes pale, of an opaque hue, often also dry, rough, and inelastic. In spite of the general emaciation, the abdomen, more especially of children, is generally tumid; percussion returns over the greater part of its surface a loud, hollow note. On passing, however, to the right side, this loud note will be dulled over a certain distance below the hypochondrium according to the extent of enlargement; occasionally, as was the case in the girl C. L——, this dulness, marking the extent of the liver, will reach as low as the crista ilii, or close to it. By using the mode of manual examination called "palpation" you will find the edge of the viscus, and feel its surface more or less distinctly according to the thickness of the abdominal walls. Observe that the surface of the gland is quite smooth, and the organ not altered in shape, save that its lower edge may appear rather rounder and thicker than usual; while again, in some cases, the organ seems firmer and harder, in others softer, than normal.

There is, then, in these cases a uniform increase in size, which does not affect by pressure or obstruction the portal circulation, since it is not accompanied by ascites; and though it may diminish, it does not annihilate the secreting function of the gland, since the fæces are coloured with bile, and since there is no jaundice.

This enlargement is due to the deposition in the constituents of the organ either of oil-globules (the fatty liver), or of a material called amylaceous (the amyloid or lardaceous liver). It is not my intention now to detain you with a minute description of the pathological anatomy of either of these states. I need only say that the latter consists in the gradual infiltration of the structure with a material which appears to consist of homogeneous molecules—apparently a low form of protein, which hardens, thickens, and whitens the organ, and in some cases no doubt destroys its function. The tissue thus affected is changed from its normal stage of high organization into the lowest type of organic matter, which hardly possesses life or function, since it can scarcely undergo change—with difficulty even that last change of dead organism, putrefaction. Therefore, as you will see at once, change from this state back to healthy condition would seem barely possible, and indeed most writers on this subject consider the malady irrecoverable. On the other hand, fat in the shape of oil-globules, is frequently present in the liver as a normal and temporary sequela of absorption from the intestine of oily ingesta. The accumulation of such substance in the cells of the gland to a morbid extent may be due to a variety of causes: it is common in phthisis and in heart disease, probably as a result of interference with the changes which the blood should undergo in the lung; it is also not unusual in wasting suppurative disease as of bones or joints. The tendency thereto, is, I believe, increased, especially in children, by confinement to bed, combined with the high feeding which is usually employed in such cases. Since, then, in healthy life, fat is frequently present in, and as often removed from, the liver, it is plain that recovery from its morbid accumulation in that organ is a much more easy process, a far more likely event, than restoration to the normal state of a liver infiltrated with so immobile a material as that which constitutes the amyloid deposit. Therefore we are often presented with certain problems which are at once of high

importance and of extreme difficulty. The first concerns our power, or want of power, to discriminate during life between these two forms of liver enlargement in the cases we are considering; the second, our faith, or want of faith, in the power of nature to cure the secondary malady if it be amylaceous, when its exciting cause, the source of suppuration, has been removed.

Concerning the former problem, I can only say that our means of differential diagnosis are very imperfect, the greater hardness or softness of the liver being our chief guide; and I need not tell you that such a sensation conveyed through abdominal walls may be deceptive, especially if those walls be thick. But fatty liver does not reach the size to which an amyloid organ may attain, as exemplified in the cases above given.

About the second problem much might be said if space allowed me to quote and to remark upon the views of many authorities. The whole balance of opinion is that amyloid disease, once commenced, is of necessity a progressive and fatal malady. With this conclusion, as far as the liver is concerned, I cannot agree; but it is impossible to prove absolutely such position, because if a person having an amyloid liver recover there occurs no opportunity of showing by chemical or microscopic examination the condition of the organ; and this is the position to which I am forced in regard to the above cases. The remarkable hardness and size of the organ, together with the condition of the patient's skin, &c., convinced me that the enlargement of the liver was in neither case due to fatty change; but I cannot prove it.

Although, then, it may in some cases be impossible to diagnose with certainty during life between these two forms of enlarged liver, we have, nevertheless, a certain and sure guide to practice. Since prolonged suppuration causes such enlargement, the liver is in every case to be carefully examined, as are also other organs, for the liver itself is not often attacked alone by the amyloid change. This organ

may, as to size, be easily interrogated. Any considerable enlargement of the spleen may be detected without difficulty in young persons. Albumen in the urine is an early symptom of the amyloid kidney, and not unfrequently the peculiarly altered epithelium and sometimes casts may be found sufficiently characteristic to give the key to the form of Bright's disease whence the albuminuria arises. Amyloid intestines are in their earlier phases with difficulty made out. Obstinate, even recurrent, diarrhœa is a suspicious sign, and careful observation of the excreta may disclose cast off villi, even clumps of villi, with the characteristic hyaline appearance, and this even without any pus or sign of ulceration. If, after careful investigation on these points, the absence of any sign of amyloid disease save the enlargement of the liver be determined, any operation for the removal of suppuration is not only justifiable, but our imperative duty. Without operation the patient must die; after operation, however hard, large, and changed be the liver, there is a fair, indeed a considerable chance of recovery, as the above cases sufficiently indicate.—*Lancet.*

The Therapeutical Action of Quinine.

M. Sée has been delivering at the Charité a series of clinical lectures on the therapeutic action of quinine, some notes of which may be of interest. He is one of the most advanced scientific therapeutists, and believes that the action of drugs in disease may be predicted and explained by their physiological action in health. It is impossible to give more than a general idea of the views advanced and ably expounded by references to the natural history of the various diseases and the known action of quinine in their different forms, especially with regard to malarial fevers and acute rheumatism. His general conclusions are as follows:—

In health quinine has a threefold action; firstly, it diminishes the frequency and force of the action of the heart; secondly, it lowers the tension in the arterial system; and, thirdly, it lowers the temperature, or prevents

its elevation by exercise &c. Whilst recognizing its action on the amœboid movements of the white blood-corpuscles, as shown by Cohnheim, Binz, and others, he does not regard this as of great importance.

In an able analysis of the various forms of malarial fever, and the teachings of experience as to the value of quinine in each, he concludes that the drug cannot be regarded as a specific or counter-poison as—(1) it does not prevent malarial poisoning when taken as a prophylactic; (2) it does not prevent recurrence after a variable period; and (3) it is useless in some of the most fatal forms, especially where the fever tends to assume a continued type. Moreover, he points out that in other fevers which present the characters of periodicity and the occurrence of initial rigor —e. g., urethral fever from catheterism,—quinine has an equally beneficial effect. He believes that the effect of quinine in ague is due to its three-fold action, exerted chiefly during the period of rigor: by its action on the heart, it diminishes its frequency and force; on the peripheral arteries, it lowers their tension and produces dilatation; on the spinal cord and vasomotor centres, acting as a sedative, it tends to diminish their excitability; and, la stly, it exerts a direct cooling action on the system generally;—the latter, however, being the least important factor.

In acute rheumatism, M. Sée considers it by far the most valuable medicine; and states that he always returns to it with benefit after the trial of all other methods of treatment. Here, again, he sées in its physiological action the most precise indications for its use. Especially in its effect on the spinal cord—in lowering its irritability, and thus diminishing the sensibility to pain; and lessening reflex excitability, and thus reducing irritation and the afflux of blood to the inflamed joints—does he consider that its value lies, its action on the vascular system and in lowering temperature being also beneficial. The dose which M. Sée recommends is from ½ to 1½ grammes (or 8 to 24 grains nearly) in the day; increasing it, however, to 2 or 3 grms., or even more if needful. It may be mentioned that this mode of treatment is adopted by a large number of the leading physicians in Paris, either exclusively or with other means; and they all appear to be unanimous in its favour. It is only in the acute stages that M. Sée considers it beneficial, except for the relief of pain; and in this respect it is also useful in gout.—*Lancet.*

Medical News.

THE LATE VACCINATION CASE.

[We have received from Dr. Larocque, Health Officer, the following particulars concerning the vaccination case, the facts of which are given in our last number. In the first place he explains that, with a view of obtaining a new supply of thoroughly reliable lymph, he procured, in May last fresh lymph in tubes and on ivory points from Dr. Martin of Boston, who guarantees it to come from the celebrated Beaugency Stock. From this lymph, a fine heifer was inoculated in the presence of several medical men. The result was perfectly successful, and at the end of eight days Dr. Larocque charged some ivory points and vaccinated several children and another heifer, the resulting matter was furnished to a great number of town and country physicians, almost all of whom have spoken to him in the highest terms of the success they have met with in using it, and not a single complaint has been heard.—*Ed.*]

At the meeting to investigate the case there were present Drs. Howard, Rottot, Ricard, Mount, Trenholme, Grenier, Lussier, Desrosier, Dugdale and Larocque besides Drs. Coderre, Gariepy, Gauthier, Craig and Crevier. Dr. Rottot took the chair.

Dr. Larocque explained the purpose of the meeting. He said that to satisfy the public upon this question of vaccination it was important to decide whether the child had or had not really suffered from the effects of vaccination. The chairman of the Health Committee had desired the Health officers to report to him upon the case, and he therefore hoped that this meeting would so sift the case as to enable them to give a clear and lucid explanation of the whole matter.

Dr. Roy was then questioned by different members, the following being the principal points brought out.

To Dr. Ricard. *Q.*—You say that on the 13th July, 18 days after vaccination, the scab was perfect, and you asked the mother to keep it for you?

Ans.—Yes.

Q.—After the scab came off, there remained a depression one or two lines deep, was this depression as large as a five cent piece?

Ans.—It was much less.

Q.—You are aware that in the month of July the majority of young children are affected with diarrhœal complaints?

Ans.—Yes, and I have had such cases but not until the 10th July.

Q.—Do you know what this child was being fed upon?

Ans.—As the parents were poor, the child eat along with the other members of the family, beef, pork, potatoes, milk, &c.

Q.—There are several bluish spots around the knee. Do you not think these due to the remains of some former eczema or impetigo.

Ans.—They are from splinters from crawling on the floor.

To Dr. Dugdale. *Q.*—Did you observe any inflammation in the axillary glands?

Ans.—No.

Q.—Did you vaccinate the child with lymph or from the scab?

Ans.—From lymph on an ivory point.

Q.—In how many places did you insert the lymph?

Ans.—In two places but only one took.

Q.—At what period did inflammatory symptoms show themselves in the arm?

Ans.—Four days after vaccination and continued to increase until the tenth day from which time they diminished.

To Dr. Trenholme. *Q.*—Have you much experience in vaccinating?

Ans.—Very little. I have only been in pratice since the month of May.

Q.—As a bandage pressing upon the scab would be very liable to induce suppuration, can you say if it was tightly applied?

Ans.—I do not think it was.

Q.—The slough removed with the scab, was it of cellular or of muscular tissue?

Ans.—The slough was about one line in diameter and two lines in depth and was composed of muscular tissue.

Q.—What was the pulse and the temperature when the child was so ill that you feared it would die?

Ans.—The child was too weak for me to ascertain either one or the other.

After these and other questions Dr. Howard addressed the meeting as follows:—

"We have met to enquire into the facts connected with a case in which the opponents of vaccination have stated over their own names in the secular press that a child had suffered so severely from vaccination that its life was in danger—that the symptoms resembled those of poisoning by a dissection wound. We have heard the evidence of the gentleman who vaccinated and attended the child, and of the two gentlemen who examined the child 17 or 18 days after the operation had been performed, and we have examined the child—and I must say that it is a matter of surprise to me that gentlemen of such standing in our profession should have published such a case as proving the injurious effects of vaccination. On so grave a subject—one so intimately connected with the welfare of humanity—we have a right to expect that scientific men, before venturing to make statements over their own signatures in the newspapers, should take care that they have a reliable basis of fact upon which to rest their authoritative statements. From what we have just heard, and after a careful examination of the child, the important facts of the case may be thus summed up:—

"A child 13 months old, having only six teeth, is during the hot weather of June vaccinated. On the fourth day thereafter, when the vaccine vesicle had appeared on the arm, diarrhœa and fever set in, but although the diarrhœa continued until the 9th of July, no other extraordinary symptom had been noticed before that day, and then the inguinal glands were found enlarged and the scrotum

inflamed. The attending physician did not examine whether there was also excoriation about the anus or in the fold between the thigh and the perinæum. Three days later, so pleased was the attending physician with the progress of the case, that he ordered a bandage to be applied to the arm to preserve the scab; but next day on removing the bandage, he found the found the scab adhering to it, and upon the under surface of the scab a piece of mortified 'muscular tissue.' These are all the facts upon which the grave charges published in the *Minerve* are based; and they appear to me easily and satisfactorily explicable upon general pathological principles and experience.

"The concurrence of diarrhœa and fever on the fourth day after vaccination, with the appearing of the vesicle on the arm was a mere coincidence. What improbability is there in the idea that a teething child should during the hot weather, when diarrhœa is usually so prevalent as to be all but epidemic, suffer from febrile diarrhœa? All the more, that the child's diet consisted of meat and potatoes, and other articles partaken of in common with the rest of the family.

"Then, as to the enlarged condition of the inguinal glands and the inflammation of the scrotum, which have been adduced as evidence of the injurious effects of the vaccine virus, such a statement is unfounded. There are anatomical reasons which disprove it. The glands situated in the neighborhood of the irritated or poisoned part and receiving the lymphatics from it are the glands which should have suffered first and chiefly. Yet in this case the inguinal glands, having no direct anatomical connection with the arm or its lymphatics were inflamed. And the correct explanation of this state of the glands is probably simple enough. The diarrhœa became associated with excoriation of the anus and adjacent parts, as so frequently happens, and the local irritation conveyed to the injured glands induced inflammation in them. Superficial inflammation and excoriation of the scrotum is a frequent attendant upon diarrhœa in young children and such was unquestionably its relation in this instance.

"In view of these facts, I would like to move—

Resolved—"That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of the opinion that there has been no proof of such being the case."

Dr. Mount seconded the resolution, and after a few further observations it was carried by a large majority of the members present.

Dr. Coderre objected to any such resolution being passed.

Dr. Ricard.—On the contrary, after the prolonged investigation which we have just made, we can, with full knowledge of the facts, pronounce upon the present case. And besides, it is our duty to do so. The community has been alarmed by the exaggerated and highly colored reports furnished to the public papers, and the public look to us for such an expression of opinion as shall represent the truth of the whole matter. It behoves us therefore as men to express such opinion so as to allay those fears which have unfortunately been aroused in the public mind.

Dr. Trenholme.—I fully concur in Dr. Howard's resolution and I would add that the cachectic state of the child is abundantly shown by the numerous cicatrices to be seen upon its body. Dr. Coderre and his followers ought to follow the code of Ethics which govern medical men all over the civilized world. We should find means to make this code generally understood and to punish in some way all conduct contrary to the rules adopted by the profession. Scientific men alone are capable of discussing matters of this kind, and to appeal, as has been done to the public, can serve no good end, and such a course is unworthy of any medical man, and of the noble profession to which he belongs and whose honor he ought to have at heart.

Dr. J. W. Mount.—I agree thoroughly in the resolution of Dr. Howard and will second it with pleasure. If Dr. Coderre, who has just said that the arms he will use against us will be those of courtesy, chooses to continue insulting us in the public papers, and imputing to us sordid motives because we do not think like him, why, let him do so: for my part, I shall give him more credit than he gives us, and will admit that his opposition to vaccination is at least conscientious.

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1874.

HONOR TO WHOM HONOR.

We publish elsewhere a letter from an esteemed *confrère* in which he makes a suggestion well worthy of the consideration of every member of the profession. Imperial honors, such as that suggested by our correspondent, have been conferred already upon eminent Canadian soldiers, Canadian jurists, and Canadian statesmen — men who have given noble aid in developing the destinies of this Canada of ours, in the field, the forum, and the Parliament. The dignities bestowed upon these gentlemen have been duly earned and honorably borne. We are not sufficiently democratic to undervalue such distinctions, and there can be no doubt that every new honor thus conferred by Her Most Gracious Majesty upon some one who has proved himself a patriotic Canadian by having done a work beneficial to the country at large, is felt by every true compatriot as an honor conferred upon his country and upon himself. Is it alone in a military career, or by services as a learned judge, or by advancing our commercial interests, or by the perfection of statesmanlike measures, that services can be rendered to be fittingly rewarded only by public recognition from the source of all Honor? Surely not. In England, it has long been the custom to encourage the medical profession by the selection of a few of its most distinguished members to be the recipients of some time-honored titular distinction — of late years, indeed, such marks of approval have even been more freely showered, and have always met with the most cordial approval on the part of the public, showing the increasing estimate

in which distinguished merit in our profession is now held. We cannot, therefore, but think that a more graceful act could not possibly be performed by His Excellency the Governor General, than the recommendation to Her Majesty to bestow the dignity of Knighthood upon some prominent member of the profession in Canada. He who has been mentioned by our correspondent is the one above all whom we believe every medical man in the Dominion would rejoice to see the first to be thus honored. Dr. Campbell has labored in this country for nearly forty years, during which time he has acquired for himself, as a surgeon, and as a teacher of the Art, an extended American and even European fame. The benefits conferred upon the country by the labors of such a man, to whom every town and country-side in Canada is indebted through the ability and skill of his many pupils, are simply inestimable. In thus honoring Dr. Campbell, honor would be conferred upon the profession of which he is a distinguished ornament, upon McGill University (the pioneer university of Canada), of which he is one of the main supporting pillars, upon Montreal, which has long been proud of his great reputation, and lastly upon the Dominion of Canada, where his name is a household word.

MEDICAL PUBLICITY.

In view of the result of the examination into the facts of the recent vaccination trouble in this city, we cannot refrain from very severely blaming those who followed the unprofessional course of laying directly before the general public that which it was only only fitting should have been submitted to medically educated men alone. One gentleman drew attention to this unusual and improper proceeding at the meeting before alluded to. Dr. Roy rushes into print to earn a short-lived notoriety by directing attention to himself and his wonderful diagnostic discovery. In this he is backed by Dr. Coderre, always ready to

appear when he thinks he has a peg, even the very slimmest, upon which to hang an argument against vaccination, and thus they continue writing long tirades and exciting the public mind by what to the uninitiated appear as the symptoms produced by a deliberate septic poisoning. It is hardly necessary to repeat that these lies thus manufactured — the outspring simply of a disordered imagination — could not bear the light. Every symptom exhibited has been clearly shown to have been due and traceable to causes entirely unconnected with the vaccination, and the result only exhibits either the absence of the knowledge or the appreciation of the simplest clinical and pathological facts, or wilful distortion of the facts as found. As regards the author himself of this unfortunate case, perhaps his youth and inexperience may claim for him an acquittal on the former ground, and as regards the other, who ought to have known better, we can hardly bring ourselves to believe the latter, but suppose he must have been so super-saturated with the prominent idea of the injuriousness of vaccine, that where this is concerned he has lost all power of judgment. None so blind as those who *won't* see.

To publish such cases and discuss such questions in the secular press is an offence against the profession. If the differences of opinion amongst medical men on this point are thus to be discussed why not those of any other? Are there not many other points in medical practice on which there is great diversity of opinion? Is that any reason why one of the minority on any such point should be permitted to air his views, and that in the most offensive manner, in the daily journals?

We hope that the signal disgrace which has befallen Dr. Roy in this his first attempt at publishing his medical observations (?) may serve to prevent his again thus erring against all propriety and professional decency; but his supporter is an old offender in this way and is not so easily reached. It is a matter which should be taken up by the Societe Medicale, and we should be glad to hear that this body had expressed its disapproval in no undecided manner of this breach of one of the best understood rules of Medical Ethics.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Introductory Address delivered at the opening of Session 1874-5, *Medical Faculty, McGill University.* By DUNCAN C. MACCALLUM, M.D., M.R.C.S., England, Professor of Midwifery and Diseases of Women and Children.

GENTLEMEN—In extending a sincere and cordial welcome to those of you with whom they have already been associated as teacher and pupil, as well to those who now, for the first time, enter the classes of this faculty, the Professors would express their confidence that the gentlemanly conduct and devotion to study which have been the characteristics of the medical student of McGill, will be fully maintained by the members of the medical class of this session; and, that the mutual respect and good-will which have heretofore existed between the professors and the students will continue to exist, giving rise as usual to kindly feelings towards, and a warm interest in each other.

There is no other science which includes within its range so many and such varied departments of knowledge as the science of medicine,—its grand aims being the preservation of health and the cure of disease. To further these important objects it has placed under contribution almost all the other sciences, and gathered within itself the most diversified information. Whatever of truthful observation and discovery has been brought to light by earnest investigators, bearing upon the difficult problems involved in the

successful working out of these objects, has been immediately appropriated and utilized, no matter from what source it may have been derived. Coeval with the creation of man, and originating in the dire necessities of his mortality, and in his relations to the forces of the universe, medicine was practised, albeit in a simple and primitive manner, ages before the words and deeds of active struggling humanity were recorded by the historian. Pain, disease and death, we are authoritatively told, became the heritage of man, and to these malign influences his living material being was constantly exposed. Not helplessly, however, for in the intellect with which his maker had endowed him, he possessed the power of investigating phenomena, reasoning upon them and forming conclusions. Thus, by observation and experience, he soon learned what to avoid in order to preserve his health, and more gradually what to apply when his system was invaded by disease. The knowledge, at first limited and scattered amongst individuals, and handed down from one to another, was in course of time increased, systematized and made the special study of a certain class of men. For many centuries medicine remained simply a science of observation. Therapeutics, or the knowledge of the treatment of disease, during this period, was consequently of the most elementary kind. Experimental investigation, to determine the laws of life, their operations in maintaining the normal healthful state of the human economy, and the influences which by disturbing the harmony of their actions produced disease, was, from the difficulties which attended its prosecution, altogether neglected. The religious element in man, which in his unenlightened state led him to attribute disordered conditions of the system to the malignancy of evil spirits whom he deified and endeavored to propitiate by rendering them homage; in later years, and in the light of Revelation led him to consider that disease was caused by the direct and immediate action of the Divine Being. This theological view of disease coupled with, and mainly the result of

a profound ignorance of physiology, long retarded the advance of the healing art.

The introduction of experimental investigation into the study of the sciences which form the ground-work of medicine has thrown a flood of light on the true nature of disease, and dispersed for ever the superstitious view which had previously obtained, replacing it by the higher and nobler view, "that every disordered state is the consequence of definite antecedent conditions, which, under the same circumstances, invariably produce the same results." And it has been by long-continued and carefully repeated experiment that all the brilliant discoveries which have made medicine the noble and elaborate science, which it is to-day, have been accomplished. And still the work goes bravely forward. Earnest enquirers are ever questioning the secrets of nature, and striving to penetrate the mysteries of life. So numerous of late years have been the workers in the fields of Physiology, Pathology and Therapeutics, and so extensive and important have been their successes, that the science of Medicine has been in great part revolutionized. No amount of labor and time has been spared in studying the minute organs and parts of the human body—their condition in health—the influence of various external agents in producing such changes as result in disease—the nature of the changes produced, and the effects of agents in restoring the altered structure and disordered function to their normal and healthy state. The result of all this active and well-directed inquiry is seen in the extensive curriculum of study which is submitted to the student of Medicine of the present day, a knowledge of all the subjects contained in which being considered necessary to enable him to practice his profession usefully and successfully. Notwithstanding, however, the great advances which medicine has made, and the more perfected condition of medical knowledge, it is not now, and from the constitution of things, probably never will be an exact science. In those sciences which deal with lifeless matter, we can generally

trace effects to their causes, and given certain conditions, we can predicate with absolute certainty, certain results. It is not so in medicine. As a rule we have no absolute and unchangeable data on which to base our calculations. The subject we have to deal with is man—a living, organized being—a wonderful and mysterious union of matter, life and spirit. In endeavouring to form an opinion as to the causes of the phenomena of disease we labour under the difficulty that we cannot by experiment accurately determine all the conditions necessary to produce the results which we observe. Numerous disturbing elements, also, are frequently in operation, which must be known and eliminated in order to arrive at correct conclusions. These are found to exist mainly in the differences which obtain amongst individuals as regards physical organization, functional activity, vital energy, nerve force and mental activity. The more thoroughly these differences are studied and known, the better will their value be estimated as disturbing causes, and the less danger will there be in their interfering with correct inferences. That physician, therefore, is the most accomplished and best fitted for the practice of his profession, who, to an extended knowledge of nature, and the forces which operate through and in matter, adds a familiar acquaintance with life processes and the influence of mind upon them. This I assert, notwithstanding the tendency of modern thought to ignore the idea of life and spirit, and to refer all vital and mental phenomena to the operation of physical forces. The philosophic mind at all times has been earnestly directed towards the elucidation of the mystery which involves the subject of the material and the spiritual. The greatest intellectual efforts have been put forth in the attempts made to solve the problem as to what is Mind, Life and Matter; and, as a result we have had numerous well-reasoned and plausible theories, many wild hypotheses, but nothing as yet which has conclusively overturned the teachings of inspiration. The so-called advanced school of philosophy of the

present day, whose belief recently formulated by Professor Tyndall, "that matter contains in itself the presence and potency of every form and quality of life," is simply striving to invest matter with all the properties of life and spirit. It is passing strange, however, that while they maintain that the deepest mysteries of life are quite explicable by their theories, they cannot give any positive and satisfactory information as to what is the ultimate condition of matter, nor as to how it originated. Matter, say they, when reduced to its elementary state, consists of atoms, which, according to some authorities are round,—according to others are angular. Those holding the latter view must have perceived that if they admitted the globular form of atoms they would be placed in a difficulty. For as rounded bodies when placed in apposition do not touch at every point, interstices are left between them. If then there be nothing in the universe but matter, what occupies the interstices? Many physiologists of this school, while striving to prove that physical forces are sufficient for the production of all the vital processes, evidently cannot divest their minds of the idea that there is a force operating in the human organism which differs in its manifestations from any known physical force. For instance, Professor Lehmann says, "The correctness of the view which ascribes vital phenomena to mechanical conditions cannot be purely tested till the existence of this new force has been proved; but how can such proof be adduced in reference to a force the simplest effects of which are unknown to us, and which differs from other forces merely by its disregard to all restrictions, and of the limits prescribed by physicists to laws? It may be briefly asserted that the exclusion of physical agency affords no proof of a purely vital force, and yet there is no other means by which its existence can be established. The physicist who rigidly follows the leading maxims of his own science, must admit the possibility of a vital force, although he may regard any proof of its existence as at present impossible."

Now this is virtually conceding the difficulty of investigating and explaining the connection of life with, and its influence over, matter, and also, that the physical forces so far as they are known do not suffice to explain life processes—that although they enter largely into their production, there is beyond them, and distinct from them, another dynamical agency which is essential to the manifestation of vital phenomena.

Let us not, gentlemen, be unduly influenced by the specious theories of eminent men. The great object of the studies which will engage your attention is to conserve life. The term *life*, conveys to the mind of the physician the idea of a condition distinct from that of any physical force, or any combination of physical forces. It is, in his estimation, that *something* in man to which other forces are subordinate, and which makes the difference between the animated body that moves, breathes, thinks, and speaks and the dead inanimate form in which physical agencies have unrestrained operation.

As regards the existence of a spirit in man, allow me to quote what I have already said on another occasion :— That there is within us something which *thinks* and *wills*, and that it can exercise these faculties independently of influences, *ab extra*, will, I think, be conceded by all who have bestowed any—even the slightest attention to the operation of their own mind. It is no less certain, I conceive, that in the present state of existence, relations of the most intimate nature exist between this thinking immaterial spirit and organized matter. Indeed, so necessary to memory and a conscious existence does this connexion appear, many distinguished immaterialists have supposed that at death the soul takes its departure from the body in a subtle material vehicle ; this vehicle having been its seat while it remained in association with the material body of the man. The most noted modern philosophers who have held this opinion were Wollasten, Hartley, Cudworth and Clarke. The Pythagorans and Platonists taught it among

the ancients. The mind, from the nature of its relations with nerve force, may be looked upon as one of the dynamical agencies which are capable of acting on matter. This view is not inconsistent with the idea of its being an entity essentially distinct from the material substratum through which it manifests itself. Nor does it suppose an identity between it and any of the other forces. It merely expresses that mental power is one link in that chain of forces which operate throughout the material part of the universe. Por this force does not act blindly, as the other forces, which produce the same effects, all other things being equal, when called into action. There is associated with it a *self-determining power* or *will*, which may, indeed, be suspended, but which acts independently of, and frequently in direct opposition to, all promptings from without. The suspension of this *volitional power*, which is one of the strongest proofs of its existence, is seen in cases of somnambulism, and that peculiar state into which a person is thrown when he is said to be "biologized," or "mesmerized." In these conditions the mind acts automatically, following out those trains of thought, and those only, which are suggested to it from without. Nervous energy is the intermediate force between the various physical and vital forces on the one hand, and the psychical force on the other. It has been arranged by the all-wise Creator that the energy of the nerves of special sense shall be excited by certain modes of force, and that the changes which the impressions made on the vesicular matter, when transmitted to the cerebrum, shall excite psychical action, and perceptions differing in kind result therefrom. Thus light, so long as it is present, excites the energy of the optic nerve—sound or motion, that of the auditory nerve, taste or motion that of the gustatory nerve, and so on. And we know that it is through these channels, as well as through the nerves of common sensation, that the mind acquires one class of perceptions, the perceiving power being a manifestation of psychical force. From what is

observed in cases where one or more of the senses are wanting, as in the congenitally blind or deaf, we have evidence of the importance of innervation to the development of psychical power. It is quite conceivable that if the functions of the nerves could not be called into operation in a human being born into the world with a nervous system complete, there would be no manifestation of mind, not on account of the absence of the *divinæ particula auræ*, but from the want of that force by which it maintains its relations with the external world.

The question might properly be asked—"If mind be one of the dynamical agencies which operate through matter, what becomes of it when the material substratum through which it acts is so altered as to prevent its manifestations or in other words, when death ensues?" There is a point in all enquiries relating to mind, beyond which, man's unaided reason cannot penetrate. "Hitherto shalt thou go, and no further," is the inexorable decree. I would answer the question thus: Mind, in its present association with matter, may be studied in its relations with nerve force, and through it, with the various other forces which operate throughout the material part of the universe; but the determination of its *nature* and *destinies* cannot be arrived at by mere scientific investigation. The Creator of mind, as well as matter, has said, however, "Then shall the dust return to the earth as it was; and the spirit shall return to God, who gave it."

Whence are these forces, and what are they? By the Pantheist they were said to be the rhythmic development of the soul of the universe; by the more modern Materialist they are considered to be the powers and potentialities which inhere in matter. Inasmuch as these views ignore the existence of a personal ever-governing intelligence in the universe, they are opposed to the sublime dogma of a revealed and eternal Deity.

Force is, doubtless, an emanation from the Divine will, which operating through various forms of matter, manifests

itself in heat, light, electricity, gravitation, growth, nervous force, &c., as the case may be. Here we recognise the omnipresence of the Deity—that all-pervading Divine agency, which sustains the life of the minutest animalcule, as well as the highest and most complex animal; which causes the sun to shine, the rain to descend, and vegetation to spring forth; which clothes the tree with luxuriant foliage, and tints the flower with beautiful hues; which marks out the path of the planets, and regulates the succession of the seasons. In the wonderful adaptation of means to ends, observable on every hand, the universe proclaims the existence of a governing *intelligence*, which has arranged all, and which supports all, and thus furnishes important proof of the personality of the Supreme Being.

"My belief is," says the Rev. Professor Haughton, "that there is but one kind of force in existence, and that is the volition of God, acting according to fixed laws, and once for all set in motion at the creation of the world."

These momentous questions are being keenly discussed and are agitating the minds of scientific men at the present day; and as they are intimately connected with the sciences which form the foundations of medicine, I have thought it advisable to give them this brief notice.

The science of medicine, gentlemen, in its present advanced condition, with all the additions that have been made to it in recent years, is certainly one of the most difficult studies that can engage the attention of man. But with all its difficulties, it is a deeply interesting study, one which is eminently fitted to expand the intellect and strengthen the mental powers. At first, doubtless, the dry details of the elementary parts are apt to prove tedious and irksome, and may even damp the ardour of the most enthusiastic student. But when these are thoroughly mastered, and an advance made to wider and more comprehensive subjects—when the interdependence of the different parts and their relations to each other are perceived—when the knowledge acquired is submitted to practical application,

and its value in the investigation and treatment of disease begins to be appreciated, the study becomes invested with the greatest interest, and its pursuit affords the highest gratification and pleasure to the student. The first Collegiate Session, then, is a critical one to the student of medicine. By the way in which he applies himself, and by the work which he accomplishes, it can be readily determined whether he will prove a success or a failure. It is generally admitted that success in any great aim or object in life is seldom the result of fortuitous circumstances. It is true that we hear a good deal said about lucky or fortunate persons, by which is often implied that whatever desirable position an individual may occupy amongst his fellows, has not been acquired by his own abilities and his own steady and persistent labour, but has been the result of chance events, over which he had no direct guidance nor control. The truly successful men, however,—the men who really do the work of the world are those who know what they have to do, and do it. The procrastinating, hesitating waiter on something to turn up—the fickle, restless seeker of brilliant and promising chances never accomplish anything worthy of note. After years of vain and fruitless anticipation, or spasmodic and misdirected effort, they lapse into disappointed men, who rail at the world and all it contains, because of their want of suceess, not seeing that the want was altogether in themselves. Failure, on the other hand, is not always the result of deficient mental capacity. It is not uncommon to meet with men possessing more than average brain power, who have never succeeded in doing anything for themselves nor for others. They may have the great pre-requisite of success, a powerful, or even brilliant intellect, nevertheless they become utter and hopeless failures. Truly, " the race is not always to the swift, nor the battle to the strong."

To succeed in your studies you should enter on them with courage and with a firm determination to overcome every difficulty ; and if this determination be supplemented

by continuous and methodical work, there can be no question of failure. There will be times when wearied and fatigued you may give way to despondent feelings and if you be not strictly on your guard there exists a danger that you may either become careless and indifferent or give up study altogether. Rather than this it would have been better had you never commenced the study; for, as Lord Bacon observes, "a man is an ill husband of his honour that entereth into any action, the failing wherein may disgrace him more than the carrying of it through can honour him." It is not necessary, moreover, to apply yourselves so closely and unremittingly to study as to seriously encroach on the time required for rest and bodily exercise. By so doing you may induce disordered states of the system; and, it is beyond doubt that diseased conditions of the body react with varying degrees of intensity on the mental processes. You may thus be rendered incapable of accomplishing as much work as if you were in perfect health. In the language of Shakespeare "the body and the mind are like a jerkin and a jerkin's lining—rumple the one and you rumple the other." If you consider the extensive ramifications of the nervous system and the important part which it takes in all the vital actions—its subservence at once to the higher mental operations, and to what we regard as the simplest and least important of the functions performed by the economy, you will readily understand the workings of the laws of sympathy, and why man's nobler part should be so much influenced by deviations from the physiological conditions of the meaner organs—those which are concerned in the building up and sustentation of his physique. The most distant parts of the periphery are united by nervous mediation with the cerebrum the admitted organ of the mind and the seat of reason. Strange as it may appear, nevertheless daily experience proves its truth, our feelings of pleasure or pain, happiness or misery, contentment or dissatisfaction, &c., depend, in a measure, upon the healthy performance of the functions of the diges-

tive system. It was remarked by Dr. Samuel Johnson, and few that have felt the pain he refers to will be inclined to disagree with him :—" that a sudden pang of the tooth-ache would render a man utterly indifferent to the most sublime strains of poetry, put to flight the most subtle train of metaphysical reasoning, and cause him to turn away from the most beautiful spectacle."

The great essential for success, then, in this as in any other study, is *work*—steady, well arranged, persistent work. A knowledge of medicine does not come to any man intuitively. There are no heaven-born physicians. Be constant in your attendance on the different lectures and weekly examinations, and while in the class room let your whole time be devoted to listening to and taking notes of the lectures. You can certainly make your mark in a far more honorable way than with a penknife on a deal board.

" Reading," says Bacon, " maketh a full man"; and superficial indeed would be your knowledge of your profession did you not read carefully and thoughtfully standard books on the different subjects taught in the lecture room. But above all, do not neglect hospital attendance. Clinical study is peculiarly adapted to give you just ideas of the physiognomy, nature and treatment of disease. It will induct you into habits of rigid observation and familiarize you with investigations into diseased conditions. You will thus be prepared to enter on active practice with a confidence which will be exactly proportioned to the attention you may have bestowed on clinical investigations and bed-side studies. By reading and by attendance on lectures you may certainly acquire a very fair knowledge of what has been written on the pathology, causes, symptoms and treatment of disease; but if you neglect the opportunity which a hospital affords of practically applying and testing that knowledge at the bed-side, you will seriously compromise your chances of ever becoming accomplished and safe practitioners of the art of medicine. For in the wards of a hospital you meet with disease as it really manifests itself, not usually exhibit-

ing those clearly defined characters which are laid down in books as distinguishing individual diseases, but so modified by various circumstances and complicated by the presence of other diseases that long and patient application can alone give a facility in forming correct diagnoses.

In conclusion, gentlemen, consider seriously the great responsibility which attaches to the practice of medicine. To your knowledge and skill will be entrusted dear and valuable lives. If you be ignorant and incompetent, your patient may succumb to an attack not necessarily fatal, while, on the other hand, if you be competent and possessed of the proper knowledge you may by your treatment turn the vacillating beam of life in his favour and snatch him from impending death.

In view of this responsibility, then, and while the opportunity presents, strive earnestly to obtain a thorough knowledge of your profession; and rest assured that your efforts will receive the active sympathy and assistance of your professors, who, in all truth and honesty, sincerely wish you God-speed.

A Case of Poisoning by Opium.—Recovery. By GEO. WOOD, M.D., C.M., Fairbault, Minn. U.S.

On the night of Nov. 26th, 1873, I was called, at half-past eleven o'clock, P.M., to see Mrs. D., who had taken 40 grains of the Sulphate of Morphia, together with an ounce of Laudanum, which she had in her possession. She had been in a desponding state of mind for some little time, and had resolved to destroy herself, so she stirred the ingredients up in a little cold water, in a tea-cup, and having drunk the potion, she went to bed, at a quarter to eleven, P.M.

A servant girl, who slept in the same room, imagined that Mrs. D. was ill, "she snored so," and tried to awake her, but could not do so, and immediately called her sister-in-law, who also tried to arouse her, without avail. The

sister-in-law called in a gentleman of the Homœopathic School, who in turn tried to arouse the patient, but without success. I was then sent for, and first saw the patient at half-past eleven, P.M. She was then very drowsy, and there was marked stupor ; the pupils were contracted almost to a "pin's point," and she lay quite motionless. It was possible to arouse her slightly, by shaking her, and calling loudly in her ear, but she relapsed at once into insensibility. The breathing was labored, and the pulse slow and full, skin moist and covered with a clammy perspiration. The peculiar smell of opium was recognized at once on entering her apartment.

I, at once, gave her an emetic of pulv. Ipecacuanhae, oz. js. in combination with Extr. Stramon. fld. min. xv. Emesis at once took place, and I then thoroughly drenched the stomach with enormous quantities of warm water, and gave brandy and coffee very liberally. In addition, the extremities were diligently rubbed, and the patient obliged to make forced marches of several hours duration round the room. My efforts were happily successful, and the patient is now thoroughly well.

In this case there are three points of interest:

First.—The immense dose of morphia taken.

Second.—The happy effect of the Stramonium in aiding the effect of the emetic.

Third.—The complete recovery of the patient without a single bad symptom.

Secondary Operation for Malignant Disease, involving the Superior Maxillary Bone. By R. P. HOWARD, M. D., F. R. S. E., Prof. of Medicine, McGill University.—Reported by J. D. CLINE, B.A., M.D., House Apothecary.

J. McG., æt. 37, was sent into Hospital, August 27th, by Dr. Howard for the removal of an extensive cancer, involving the bones of the side of the face, which had recurred after excision of the Superior Maxillary. This first o'

tion was performed by Dr. McLean of Ann Harbour University, in February last, and the disease was pronounced cancerous then. After the operation a tumour began to be developed under the left eye very rapidly. It attained its present size, about that of a walnut, in three weeks. His condition on admission to the Hospital was as follows: Externally was this tumour immediately under the left eye, with the integument over it bluish, but not adherent. The cicatrix after the incision of the first operation was bluish, extending up the mesial line of the upper lip, covering the ala of the nose up towards the inner angle of the eye, and thence running horizontally across the cheek; this latter part corresponding with the lower border of the tumour. Internally there was absence of the Superior Maxillary bone, the whole of which had been removed, with the exception of the nasal process, but this side of the cavity of the mouth was much contracted, and filled with hard nodular excrescences. By the matting of the muscles the jaws could not be opened more than three quarters of an inch. The patient suffered from a constant dull aching, with an occasional pain of a lancinating character. His general health was good. He was a stout, hardy countryman, and a splendid subject for operation.

The Operation.—After the administration of Chloroform, Dr. Howard proceeded to operate in the presence of the Medical staff of the Hospital. He made his incision from the inner angle of the eye directly across the tumour, well over the malar bone, and dissected the integument from the tumour upwards and downwards. He then made the vertical incision along the base of the nose round the ala of the nose and down the mesial line of the lip, by which incision he entered the cavity of the mouth. Then freeing the cicatrix from the base of the nasal process of the maxillary he dissected out the mass of the tumour, and reflected the large flap well up on the malar bone with a Hey's saw; he now cut through the malar bone near its articulation with the zygoma and the angular process of the frontal bone,

and removed its deep attachments by the bone pliers. He then proceeded to remove part of the palatal process of the right maxillary by extracting the two incisor teeth of the right side, sawing through the alveolar process, and dividing the hard palate by bone pliers, as well as the lower half of the vomer. He also removed part of the nasal process and the laclorymal bone. He then carefully dissected out all the suspicious-looking fibrous tissue around the sides of the great hole that was thus made, also scooping out as much as possible of the cells of ethmoid in which direction the disease seemed to extend. No vessel had to be ligatured though there was great general oozing which was checked by sponging with Liq. Ferri Perchlor. Dr. Howard now stuffed the hole with lint saturated in carbolic oil, 1 to 20, and sewed the flap up using silk all round, with harelip needles for the incision in the upper lip.

Condition after the Operation. — The external wound healed by first intention. The suppuration was very great from the internal surface, the fetor from it being well corrected by the carbolic dressing. On the third day after the operation some slight erysipelas appeared on that side of the face, and for a few days came and went in different parts in the neighborhood of the wound, but was easily checked by the application of a lead lotion. There was very little constitutional disturbance, which is surprising after such a serious operation about apparently so delicate a part of the body. About a week after the operation, noticing a somewhat suspicious appearance of the granulations along the edge of the palatal plate, which were large, soft and fungous, Dr. Howard clipped them off. He found that the bone was not involved as he had feared.

Now, about four weeks after the operation, the process of healing inside the mouth is progressing very satisfactorily. A great deal of contraction may be expected to take place yet. The greatest inconvenience which the patient experiences is inability to articulate by reason of the large communication between the mouth and nose. He has, however,

made arrangements with a clever dentist in the city to remedy this by a plate of gutta percha to form an artificial roof for his mouth. It is a very interesting case for such an attempt and presents difficulties which will try the dentist's skill. His success, however, in which I have no doubt, will prove to the Medical profession what is very important, namely, the amount of aid which surgery can derive from the mechanical skill of the dentist.

HOSPITAL REPORTS.

SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Under the care of D. C. MACCALLUM, M.D., M.R.C.S., England, Prof. of Midwifery and Diseases of Women and Children, McGill University. Reported by J. D. CLINE, B.A., M.D., House Apothecary,

Two Cases of Strangulated Inguinal Hernia. A Frenchman, 36 years old, was brought into the Hospital, about 10 o'clock one evening. The man had a hernia which had been strangulated for 38 hours. Three or four surgeons outside had made four different attempts to reduce by taxis, keeping it up for about an hour each time, and had failed. Chloroform had been administered once. Ice and linseed poultices had been applied at different times. The patient was in a weak and distressed condition, almost in a state of collapse when admitted. The hernia was very large and tense, extending into the scrotum, and the constriction very tight throughout the whole extent of the inguinal canal, but especially at the internal ring. The man had rejected everything that had been given him through the day, but had no stercoraceous vomiting.

On admission, ice was ordered to be applied and Morph. sulph. gr. ½ was given dry on his tongue, and Drs. Mac-

Callum and Roddick sent for. On their arrival in about half an hour they tried taxis very gently under chloroform, but soon desisted knowing the handling which it had received before, and proceeded to operate. On getting down to the sac, they found that the stricture was in a great measure in the sac, and accordingly determined to open it. On doing this a considerable quantity of clotted blood escaped, which must have come from some vessel which was ruptured, apparently by the excessive handling which the parts received when in a state of congestion. The gut was very much congested. There was a small piece of omentum in the sac. On dividing the stricture the gut readily returned. The external wound was closed with stitches and a pad applied with a spica bandage. In the morning the patient was very weak; his pulse small and rapid. There was a good deal of tympanites, and considerable tenderness in the region of the operation. He was ordered Pulv. Opii. gr. i. every three hours, and if getting worse, every hour. He became steadily worse, the tenderness spreading over the entire abdomen. By 4 P. M. his pulse could not be felt. He had not been able to retain anything in his stomach all day. He died at 9 P. M., about 22 hours after the operation. There was no autopsy. The obvious cause of death was Peritonitis superadded to the collapse from which he never emerged. There can be no doubt that the repeated and severe manipulations to which the hernia was subjected, was in a great measure the cause of the rapid inflammation, apart from the incision into the sac; at least the condition must have been one in which the membrane would be much more liable to inflammation. Another element in the causation of the inflammation may have been some hæmorrhage from the ruptured vessel which had bled before, after the relief of the stricture.

The other case was that of a Frenchman about 60 years old, who was brought to the Hospital at 12 o'clock, suffering great agony, having a strangulated hernia of immense size. The hernia was an oblique inguinal on the right

side, occupying the scrotum and distending it greatly. The scrotum hung about nine inches. The accident occurred about 9 o'clock in the morning. It was an old hernia, but had never been strangulated before. By percussion it was found that a large part of the contents of the sac was omentum. An attempt at taxis outside, without the aid of chloroform, had failed. After the administration of chloroform, Dr. MacCallum succeeded, not without great difficulty and perseverance, in reducing it. An obstacle was the great difficulty in bringing the patient fully under the influence of the anæsthetic, so as to relax the abdominal walls. A pad with spica bandage was applied, and in a couple of hours after a sleep the patient went home.

Compound Fracture of Forearm.—A useful limb resulting. I. M., aged 16, on the 25th of July, met with an accident in a tobacco factory, by which both bones of the forearm were broken, the radius protruding through a large wound in the back of the arm. The wound extended entirely across the posterior aspect of the arm, down to the bone through the deep layer of muscles. The torn fragment of the radius protruded about an inch and half. Fortunately the large vessels in front of the arm were not injured and the circulation in the hand was perfect. Dr. MacCallum put up the arm in an anterior splint and applied carbolic lotion by irrigation to the wound, having first cut off about one and one-fourth inches of the radius which was protruding, taking care to strip up the periosteum. After a couple of weeks a simple dressing with carbolic lotion was substituted for the irrigation. By this time the granulations had closed nicely over the ends of the bones. In six weeks the wound had entirely closed and the ulna fairly united. The boy now left the Hospital and comes up occasionally to show the arm. The radius is rapidly consolidating. He has perfect power of flexion and extension in his fingers and wrist, and will have a very useful arm, notwithstanding the impairment of the movement of rotation

which there will be. Throughout the whole time there was very little constitutional disturbance.

Ligature of Anterior Tibial for Wound.—F. D., 38 years old, carpenter by trade, inflicted a wound on the front of his leg about five inches above the ankle with an axe. The hæmorrhage was great from the division of the anterior tibial artery. The accident occurred on a Friday morning. He was seen by a surgeon who applied a compress and several layers of bandage very tightly over it. On Saturday evening, about 36 hours after the accident, he came to the Hospital. The whole bandage was saturated and stiff with blood which had been oozing through it constantly. Dr. MacCallum having arrived about 10 P. M. removed the bandages when the blood spurted out as freshly as ever. The wound was about three inches long extending obliquely upwards and inwards. The hæmorrhage being controlled by pressure on the femoral artery, the wound was extended upward about three-quarters of an inch when the ends of the vessel were very easily discovered, being engaged in the clot which filled the wound. A ligature was applied to the two ends and carbolic lotion ordered. Next day a large slough formed all around the wound evidently caused by the pressure of the hardened clot and compress which had been so tightly applied. Linseed poultices were now applied till this slough had separated, and then a chloral wash 1 to 50 was applied. The wound is now granulating nicely. The ligatures separated in about nine days without any return of hæmorrhage. This case shows the folly of trying to control the bleeding from a vessel as large as the anterior tibial by pressure. If the ends of the artery had been secured in the first place the man would have been confined only a few days, whereas now it will be a matter of several weeks, there being quite a large ulcer to granulate.

There are also under the care of Dr. MacCallum two very interesting cases of paraphimosis from inflammation. Both the men had soft chancres, with a good d

flammation about the prepuce, which in both were rather long. Having got the prepuce back they were unable to draw them over the glans again. The stricture in both is about three-quarters of an inch behind the corona glandis, corresponding with the opening of the prepuce. In both cases when they came to the Hospital the stricture had been relieved by sloughing, so that nothing was to be done but to relieve the inflammation by local applications.

Excision of Fibrocystic Tumor. — On Saturday, Sept. 19th, W. S., aged 45, came to Hospital with a large tumor on his leg occupying Scarpas triangle. The tumor was very dense, except in one or two spots where fluctuation could be made out. It was very immovable, being bound down by the fascia lata, and bounded above by Poupart's ligament. The tumor had begun to grow three years ago, but had not caused any inconvenience until lately, when its bulk interfered somewhat with his walking. The patient experienced a sensation of numbness sometimes in his leg. The pulsation of the arteries below it was not quite so strong as in the opposite leg, yet the circulation was not seriously interfered with. Within the last six months it had grown more rapidly than before. Dr. MacCallum operated on Saturday, making an incision about nine inches long, over the tumor, a little outside of mesian line so as to avoid the saphenous opening with all its veins: when he got down to the sac of the tumor, he effected the dissection of the integument and fasciae by his fingers. The sartorius muscle was spread over the tumor and closely adherent. It was cut at each end of the tumor which was then easily enucleated. The femoral artery was seen pulsating immediately under. The wound was closed by stitches and a compress applied to keep the deeper parts of the wound in apposition, and carbolic solution used as a dressing. Six hours after the operation the patient was very comfortable, his pulse being only 56. On Monday, still progressing favorably. No fever.

Correspondence.

To the Editor of the Canada Medical and Surgical Journal.

SIR,—It seems to me that there is a great want of organization amongst that large and very useful class of women in Montreal, the female professional nurses, which proves very inconvenient to those requiring them, and unprofitable to the nurses themselves. I do not know that there are any professional male-nurses in the city, although I have no doubt that a few could find pretty constant and lucrative employment. The total number of trustworthy female nurses finding employment in this city is, I believe, pretty large, and of these a certain section only is employed by each practitioner. It is not an uncommon complaint from friends of patients, that after getting a long list of addresses from their family medical attendant, they have to travel for hours, often at most inconvenient seasons, before they can find a suitable nurse disengaged. The out-of-the-way places where they have to go for nurses, too, is complained of; but if it is disagreeable to reach these places, how much more so must it be for this worthy class of people to live in them. A gentleman of my acquaintance lately went in search of a nurse, and after going to the dwellings of about twenty, failed to find one disengaged, and he recommended any one who wished to know Montreal as it is, to undertake a similar task.

Would the JOURNAL not suggest some plan for the remedy or amelioration of this state of affairs? Would the nurses not attempt some system amongst themselves? Might not some place be selected where nurses could leave their addresses, recommendations and information as to engagements, all of which would be not only convenient for those needing nurses, but also insure more constant employment to those availing themselves of this plan? Might not some comfortable "Nurses' Hall" be established where those

temporarily disengaged would find a pleasant home, at a reasonable price, instead of requiring to keep constantly for themselves rented rooms, often uncomfortable and ill suited to their tastes. In some such way as this the greater comfort of nurses and the convenience of the public might be secured. But who is to take the matter in hand?

The subjects of training and qualification are matters which might well be taken up, after some system of organization had been established in the *corps* of well-trained and qualified nurses which already exist in our midst.

I am, etc.,

BETA.

Periscopic Department.

MEDICINE.

On Ipecacuanha Spray in Winter Cough and Bronchitic Asthma. By SYDNEY RINGER, M.D.; and WILLIAM MURRELL.

The successful use of a secret remedy by a well-known practitioner induced us to try the effect of inhalation of ipecacuanha spray. Our results have been so satisfactory that we desire to draw the attention of the profession to this mode of treating these obstinate complaints—winter cough and bronchial asthma. Our observations were made during January and February. Whilst under this treatment the patients took only coloured water, and continued their usual mode of living in all respects.

We shall first refer to winter cough. We have made observations on twenty-five patients, whose ages varied between forty-five and seventy-two, with one exception—that of a woman of thirty-two years. We purposely chose severe cases. In order to avoid burdening this paper with too much detail, we give here a typical case, which will serve in most points to illustrate the condition of the patients. Subsequently we shall report two actual cases in full.

The patient has been troubled with winter cough perhaps for many years. During the summer he is pretty well; but during the cold months, from October to May, he suffers sometimes without intermission, occasionally getting a little better and then catching cold; or perhaps he may lose his cough for a few weeks, but again take cold on the slightest exposure. So short is the breathing that he can walk only a few yards, especially in the cold air, and finds it hard work to get upstairs, and is often quite unfitted for active life. The breathing grows worse at night, so that he cannot sleep unless the head is propped up with several pillows. He is troubled, too, with paroxysmal dyspnœa, usually at night, which may last several hours, and compels him to sit up. Sometimes the breathing is difficult only on exertion; and in those cases it is made much worse by fogs, east winds, or damp. The expectoration varies greatly; in a few cases there is very little; usually, however, it is rather abundant, and consists of mucus or pus, often with little or no rhonchus in the chest. It is often difficult to expel the expectoration. The cough is generally very violent, frequent, hacking, and paroxysmal, and the fits may last ten or twenty minutes and even excite vomiting. They are generally brought on by exertion; nay, in bad cases so easily are they provoked that the patient is afraid to move or even to speak. The cough and expectoration are much worse in the morning on waking. Sometimes the cough is slight, and then the expectoration is generally scanty, the distressed breathing being the chief symptom. The patient generally wheezes badly, especially at night, and in a bad case the legs are swollen. The patient is emphysematous; there is often no rhonchus, or only sonorous and sibilant or a little bubbling rhonchus at both bases.

In this common but obstinate complaint our results have been very striking, although in many of our patients so bad was the breathing that, on being shown into the out-patients' room, they dropped into a chair, and for a minute or so were unable to speak, or only in monosyllables, having

no breath for a long sentence. We used the ordinary spray-producer, with ipecacuanha wine pure or variously diluted. On the first application it sometimes excites a paroxysm of coughing, which generally soon subsides, but if it continues a weaker solution should be used. The patient soon becomes accustomed to it, and inbales the spray freely into the lungs. At first a patient inhales less adroitly than he learns to do afterwards, as he is apt to arch his tongue so that it touches the soft palate, and consequently less enters the chest than when the tongue is depressed. The spray may produce dryness or roughness of the throat, with a raw sore sensation beneath the sternum, and sometimes it causes hoarseness; whilst, on the contrary, some hoarse patients recover voice with the first inhalation. As they go on with the inhalation, they feel it getting lower and lower into the chest till many say they can feel it as low as the ensiform cartilage.

The dyspnœa is the first symptom relieved. The night after the first application the paroxysmal dyspnœa was often improved, and the patient had a good night's rest, although for months before the sleep was much broken by shortness of breath and coughing. The difficulty of breathing on exertion is also quickly relieved; for often after the first administration the patient walked home much easier than he came to the hospital, and this improvement is continuous, so that in one or two days or a week the patient can walk with very little distress, a marked improvement taking place immediately after each inhalation; and although after some hours the breathing may again grow a little worse, yet some permanent improvement is gained, unless the patient catches a fresh cold. We have heard patients say that in a week's time they could walk two miles with less distress of breathing than they could walk a hundred yards before the spray was employed. In some instances two or three days' daily spraying is required before any noticeable improvement takes place, this comparatively slow effect being sometimes due to awkward inhalation, so that but little ipecacuanha passes into the bronchial tubes.

The effect on the cough and expectoration is also very marked, these both greatly decreasing in a few days, though the improvement in these respects is rather slower than in the case of the breathing. Sometimes for the first few days the expectoration is rather increased. It speedily alters in character, so that it is expelled much more readily, and thus the cough becomes easier, even before the expectoration diminishes.

Treated in this way the patient is soon enabled to lie down at night with his head lower, and in a week or ten days, and sometimes earlier, can do with only one pillow. This improvement occurs in spite of fogs, damp or east winds—nay, even whilst the weather gets daily worse, and when the patient is exposed to it the chief part of the day. All these patients came daily to the hospital. Of course it is much better to keep the patient in a warm room.

Here are short notes of two cases, the first a very successful one.

J. H——, aged seventy-two, has had a winter cough for the last three years. The cough comes on in fits, and is very bad at night. Fogs greatly aggravate it. She spits about a teacupful of thick yellow phlegm in the twenty-four hours. So bad is her breath that she cannot lie down at night, but is propped up with pillows, and is always wheezing. She is obliged to stay at home for weeks together. Her lungs are emphysematous, with only sonorous râles. After the first inhalation there was great improvement—freedom from cough all night, with much easier breathing. Further improvement took place after the next day's inhalation, and still more after the third, so that on the sixth day of treatment, and after three inhalations, she reported that her breathing "was not near so troublesome; thinks nothing of it now; does not spit up half as much," and the expectoration is white and frothy. This poor woman was loud in her praise of the treatment; said she "never expected it," and "when first she came to the hospital thought she should never get about again." J. H—— is now suffi-

ciently recovered to take charge of a shop, though before her attendance at hospital she had not been out of her room for four months. She was discharged, and called a month afterwards to say there had been no relapse.

Now comes a less tractable instance, a fair specimen of one of the more obstinate cases.

M. A——, aged thirty-two, came to the hospital January 29th with a winter-cough of many years' standing, and worse this winter than ever before. The cough is paroxysmal, the slightest exertion, even talking, bringing on an attack. The paroxysms vary much, but generally last ten minutes. In the twenty-four hours she spits about a teacupful of thick yellow phlegm. Extremely short-breathed, and she is quite unable to do her house work, and at night is unable to sleep unless propped up with three pillows and a bolster. The breathing always gets worse at night. Fogs increase all her troubles. Has been hoarse for weeks, and if she talks much she altogether loses her voice. Her chest is very sore with coughing. She is emphysematous, and her breath-sounds are obscured by cooing râles.

Feb. 3rd.—The patient, who has had an inhalation on five successive days, now says she is in every way much better. The breathing is much easier; the cough is not nearly so violent; her chest is less sore; the expectoration is much less; and there is very little hoarseness.

6th—The inhalations have been continued daily. The patient says she is better than she has been all the winter. The improvement in her breathing is very great and she can now do with only one pillow at night instead of three. She sleeps much better. The cough is greatly improved, and instead of being "aggravated" towards night, is now better at that time. Expectoration has almost ceased.

10th.—Has had only one inhalation since last date, and her breathing has been a little more distressed.

12th.—Has had an inhalation daily, and the dyspnœa has again nearly disappeared.

17th.—Has had but one inhalation since last date. The

cough now has almost left her, and she often goes twelve hours without a fit. Her breathing is so much better that she now does her own house-work, and is not propped up at night.

Discharged after ten inhalations and nineteen days' treatment.

A month afterwards she came to the hospital to say that her breathing was all right, and that she had been perfectly well since her discharge, with the exception of a slight hacking cough.

All but one of the twenty-five patients were benefited. In one case the improvement was very gradual, but there was evident temporary improvement after each inhalation. In twenty-one cases the average number of inhalations required was 9·4, and the average number of days was twelve, before the patients were discharged cured. The greatest number of inhalations in one case was eighteen, and the smallest three. The case longest under treatment required twenty-four days; the shortest, four.

In employing the ipecacuanha spray, in order to ensure as far as possible only its topical effects, we were careful to direct the patient to spit out and even to rinse out the mouth at each pause in the administration, for a much larger quantity of the wine collects in the mouth than passes into the lungs. If this precaution is not adopted, sometimes enough is swallowed to excite nausea and even vomiting, by which means the bronchial mucus is mechanically displaced, and of course in this way effects temporary improvement. Even when this precaution was observed, a protracted inhalation will excite nausea and sometimes vomiting by the absorption of the wine by the bronchial mucus membrane; though, strange to say, when thus induced, vomiting was long delayed, even for several hours—nay, sometimes not till the evening, though the inhalation was used in the morning. In the reported cases, however, improvement was not due to the nauseating effects of the spray, for we took care to avoid this contingency by

administering a quantity inadequate to produce this result. The duration of each inhalation will depend on the amount of spray produced by each compression of the elastic ball, and on the susceptibility of the patient to the action of ipecacuanha. As a rule, the patient at first will bear from twenty squeezes of the spray without nausea, and will soon bear much more. After two or three squeezes, especially on the commencement of the treatment, we must pause a while. It is necessary to look at the patient's tongue and tell him to learn to depress it, for if the tongue is much arched it will hinder the passage of the spray to the lungs. It is a good plan to tell the patient to close his nose with his fingers and to breathe deeply. The inhalation should be used at first daily, and in bad cases twice or thrice in the day; afterwards every other day suffices, and the interval may be gradually extended. If the ipecacuanha wine is diluted, then the spray must be used a longer time. In cold weather the wine should be warmed.

We have tried the spray with very satisfactory results in a few cases of the following more severe though closely allied disease:—A patient for several years has suffered from severe winter cough, with much dyspnœa, cough, and expectoration; and on several occasions has spat up a considerable quantity of blood. The physical signs denote slight fibroid consolidation, with excavation of both apices, and much emphysema, perhaps atrophous in kind. There is little or no rhonchus, and no fever. The expectoration may be slight or very abundant, muco-purulent or purulent. The dyspnœa is, perhaps, very severe; and is so paroxysmal as to justify calling the case bronchial asthma, with emphysema, and fibroid phthisis. In these cases the ipecacuanha spray is almost as beneficial as in the preceding. It soon controls the dyspnœa, thus enabling the patient to sleep, and greatly lessens expectoration and cough; and by these means really improves the general health. As in the previous cases, the first inhalation may considerably improve breathing, though the effects are not so permanent, the

dyspnœa returning in the evening; so that spraying is needed night and morning, and may be necessary for weeks or months, the ipecacuanha appearing rather to give relief than to permanently cure the dyspnœa.

We have used the spray in two cases of true and severe bronchial asthma, with very opposite results. In one severe case, accompanied by a great deal of bronchitis, it gave very great relief. The other patient, not so ill, has been all his life asthmatical; and on catching even a slight cold his breathing becomes greatly oppressed. In this instance each application of the spray considerably aggravated the dyspnœa, even when the wine was diluted with an equal quantity of water. Possibly a still weaker solution might have been borne; but we are inclined to think that in this case any quantity of ipecacuanha would have disagreed, as the tightness of breathing increased almost immediately the inhalation was begun.

The successful case was a very severe one. For years this woman had suffered from bronchitic asthma, and when she applied to the hospital was unable to lie down owing to shortness of breath. She suffered also from violent paroxysmal dyspnœa, the worst attack beginning about three A.M., compelling her to start out of bed and struggle for breath. She was very emphysematous; her voice was very hoarse. The first inhalation removed the hoarseness, and much improved her breathing, which continued freer till midnight, when the dyspnœa returned. The cough was eased, and she expectorated more freely. Each inhalation always gave her very great and marked relief. She walked to the hospital with great difficulty, and was constrained to stop frequently. On entering the room she could not speak, but laboured violently and with loud wheezing to get her breath. A few inhalations would gradually set the breathing free, so that the air entered more and more, and the wheezing gradually left, till, on the completion of the inhalation, she could breathe without difficulty. As the breathing improved she could feel the spray descending

lower and lower in her chest. At first it would seem to reach only the back of the tongue, then the top of the sternum, then descend to midsternum, and at last she felt as if it reached as low as the pit of the stomach. This improvement was maintained through the day, but at evening a relapse would occur, so that her nights, though at first bad, were still better than before the treatment. Soon, however, the effects became more lasting, and she slept well. On discontinuing the spray, however, her breathing again grew worse, and she was obliged to revert to the treatment: but unfortunately she soon caught cold, and so bad was the weather, that she was obliged to stay away for days together. Whilst her breathing improved the cough and expectoration also improved, but these two symptoms continued rather troublesome. Probably in bad bronchitic asthma the spray must at first be used twice a day or oftener, and must be continued for some time to ward off the dyspnœa, for in these obstinate chronic cases the bronchitis may take a considerable time to cure. So marked was the improvement from the spray that the patient and her friends expressed their astonishment, especially at the prompt relief it gave.—*Lancet.*

SURGERY.

On the Dispersion of Tumours by Puncture. By DEPUTY INSPECTOR-GENERAL CAMERON.

Those familiar with the East are aware that, from time immemorial, the native hakims have been accustomed to attempt to bring about the absorption of the enlargements of liver and spleen, so common in hot malarious countries, by the use of puncture with long, sharp stilets of considerable thickness. Twining, in his work "On the Diseases of Bengal," mentions the practice.

I have never followed it for the purpose of procuring the dispersion of such enlargements, but I have frequently seen those of the liver disappear rapidly after repeated plunges

of an ordinary hydrocele trocar when seeking unsuccessfu for suspected abscess; and I may say here, that I ne saw in any instance inflammatory or any other bad syn toms produced by such operations, strange as it may app to those unaccustomed to perform them. But what I wi to draw attention to is, that other enlargements besi those of liver and spleen may be made to disappear puncture. Nothing is more tedious than those chron glandular swellings which, in strumous subjects, often hot countries follow upon trifling causes, such as ang mosquito bites, riding a rough bucking horse, over-exertio or a strain in cricketing and so forth. I have seen an offic laid up for many months, and ultimately invalided with large mass of indurated enlarged glands occupying th whole inguinal region, and resisting all the recognized rou tine of treatment. Accident showed me that deep punctur of such masses with a common lancet held at right angle to the swelling, and pushed down to its bottom, will ofte cause absorption to set in and proceed rapidly, The first case in which this occurred to me was one of a mercantile gentleman, disabled by a mass of swollen inguinal glands, hard as a board almost, and resisting all treatment. This patient's loss of time at office was a very serious matter to him, and influenced by his despairing impatience, I plunged a lancet perpendicularly into the mass as far as it would reach. The point came out tinged with matter, and hard pressure brought up a little cheesy, ill-formed pus, but no discharge whatever followed, and absorption set in and proceeded rapidly.

An extraordinary and suggestive case occurred to me afterwards, which, in my opinion, affords grounds for thinking that puncture might possibly be found to bring about the dispersion of such growths as fibrous tumours of the uterus. Reasoning from the non-supervention of any evil symptoms after repeated and deep puncture of the liver, even with such a clumsy tool as a small hydrocele trocar, I see no ground for fearing to puncture with a sma

such a fibrous uterine tumour as is often plainly to be felt through the abdominal parietes, and I think puncture through them less likely to be followed by any evil consequences than puncture per vaginam, owing to the perfect exclusion of air. That an analogous operation of the kind can be done safely and successfully the following remarkable case shows.

When superintending surgeon of the Southern Province in Ceylon, one of my assistants requested my advice respecting an infant of a few months old, whose parents were in a great state of anxiety and alarm about a swelling which they had discovered in its abdomen, and on which the usual constitutional and local treatment produced no effect. A fine healthy infant was brought forward, through whose abdominal walls a firm tumour, about the size and shape of a dove's egg, could be felt with ease. It was smooth, movable to some extent, painless on pressure, and seemed to be situated in front of the upper edge of the quadratus lumborum muscle, as far as one could judge, half way from the spine. I told the parents that nothing operative could be attempted with it, and recommended patient perseverance in the treatment already adopted, assuring them that no change was to be feared if left alone. This did not at all satisfy them ; they declared the tumour was steadily increasing, and would ultimately kill their child, imploring me to save it by an operation. To all this I turned a deaf ear, but they worried the gentleman in charge incessantly, and at last he too begged me to do something with the case, no matter what. On seeing the child again I found that the tumour was certainly increasing, for now it was as big as a full-sized pigeon's egg ; still I counselled non-interference, assuring the parents that any operation would in all probability prove fatal. To this they replied that they were quite prepared for such a result, and willing to risk it, as death would certainly follow the steadily increasing enlargement of the tumour, so that really they had all the misery of their only child dying by inches, and nothing done.

to prevent it! At last, like the importunate widow, they wearied me out, and as in my then position I had not to dread either Mrs. Grundy's remarks or a coroner's inquest, I agreed to "do something," at the same time distinctly stating that inflammation and death would almost certainly be the result of meddling. Full acquiescence being given, I steadied the tumour between my fingers spread out, and then pushed a lancet, held at right angles, deep into it. The feeling communicated to the hand was that of penetrating a dense glandular structure. No trace of matter appeared on the blade, no diminution of the tumour, nor any sign of internal hæmorrhage; so the infant got a suitable opiate and a large poultice over the abdomen, the parents being quite happy at their wishes being granted. It never had the slightest fever or bad symptom of any kind, and, absorption having set in at once, the tumour, whatever it was, disappeared altogether in a very brief space, while I had the praises of my wonderful skill sounded in all directions. With this case and those where a like result followed on puncture of the liver borne in mind, I should be greatly disposed to try a similar treatment sooner than see a patient perish by hæmorrhage consequent on fibrous uterine tumour. Those who never witnessed hepatic explorations are often very slow to believe in their safety and good effects. An old Peninsular P.M.O., new to the East, once saw me push a trocar deep into the liver three times in succession without finding the abscess I was in search of. He stole quietly away, unnoticed, while I was bending over the patient, being fully convinced that death would result. Next morning he met me with a very ominous face, and inquired, "How is your man, sir?" "Oh, very well," I replied. "What, sir! very well! after receiving three deep punctured wounds in his liver?" I advised him to go and see for himself, and great was his surprise on doing so. In that case a perfect recovery took place, the general enlargement wholly disappeared, and the man, a sad drunkard, was soon discharged to duty.

Having, some years ago, been so well abused in the pages of this journal by the Netley Professor of Medicine, for strenuously advocating the early puncture of the liver in every case of suspected abscess, it is with peculiar pleasure that I have read in the *Medical Gazette* of the 25th of April last, p. 457, the brilliant success of the operation at the Madras General Hospital, in a case where two distinct abscesses—one containing four and the other *forty* ounces of pus—were opened in succession in the same patient, instead of leaving him to die of hectic while waiting for "pointing" to take place, as insisted upon by my severe critic. How many lives have I seen sacrificed to such timid practice! My long experience in such cases leaves no doubt on my mind that where hepatic abscess is suspected to exist, not a day should be lost before endeavoring to evacuate it. If this is done while the abscess is still small, and also deep-seated, I am inclined to think that nothing beyond the first emptying of it will be required, and that the canula may safely be withdrawn and the opening closed at once. The last hepatic abscess I opened showed no external indications whatever of its existence. The man had never had any acute symptoms, but was steadily declining in health without any specific tangible cause, so that I was requested to see him in consultation, and diagnosed deep-seated abscess, more by the method of elimination than anything else, save the sort of intuitive conviction which long experience often causes one to feel without being able to say specifically why. I felt certain he had a deep abscess somewhere in his liver, and made two deep unsuccessful explorations for it with an ordinary trocar. Fancying I had not gone deep enough, I took a long rectum trocar, and with that hit the spot, and evacuated about two ounces of thick matter. The usual plan of fastening in the canula was adopted, but it slipped out in the night and could not be reintroduced, in consequence of resistance and struggles of the man. I expected the peritoneum and death would result, but to

my surprise the man rapidly recovered without the slightest bad symptom, and without any further discharge whatever, thereby considerably enlarging my ideas on the treatment of his formidable ailment; but, unfortunately, I never had another case of it during my subsequent year's service in India on which to try the improved plan of management with which accident had made me acquainted.—*The Lancet.*

Hydrophobia with Two Years and A Half Incubation.

Dr. Féreol, at the meeting of the Académie de Médecine of the 21st ult., read a very long memoir on a case of hydrophobia occurring in an individual bitten two years and a half before by a mad dog. He has since published it at length in the *Union Médicale*, but we may content ourselves with noting the chief points. The patient was a M. Durieux, a *pharmacien* by occupation, and forty-eight years of age. On June 18 he was admitted into the Maison de Santé with symptoms of commencing hydrophobia, which speedily became quite confirmed. Death occurred on the third day, and beyond some cerebral and spinal meningeal congestion nothing special was found at the autopsy, which was performed with the greatest care. The patient stated that he had been bitten in the hand two years and a half ago by a mad dog, and subsequent inquiries have confirmed his statement.

M. Féreol, convinced that his patient died of true hydrophobia, reviews at great length the various affections with which this may be confounded. Treating of "nervous hydrophobia," he refers to a remarkable case which fell under M. Demarquays notice. A student at the Hôtel-Dieu having been greatly affected by the suffering which he had witnessed in a patient dying of hydrophobia, had the misfortune as he was leaving the hospital to be himself bitten by a dog. He returned in a state of desperate alarm, and had the wound thoroughly cauterized, declaring that within six weeks he should return to die in the state of

horrible suffering which he had just witnessed; and accordingly at the period indicated he did return with all the symptoms of hydrophobia developed. As he was still alive at the end of the forty-eight hours, when the patient whom he had seen had expired, M. Demarquay joked him, declaring that, as he had passed that period, he had not the disease, and had nothing to fear. These words inspired the youth with hope, his symptoms abated, and he recovered. That the present patient was suffering in some analogous manner is rendered highly probable by a statement made by Baron Larrey at the next meeting of the Academy. During the siege of Paris, he observed, this M. Durieux (who besides being a *pharmacien*, had a medical diploma) became well known to him as an applicant for employment in the ambulances. From the first he remarked his zeal and ardour, as well as his excited state and language. He seemed to seek to brave all perils in order to distinguish himself; and his excessive anxiety to obtain the Cross, and his tumultuous joy on succeeding, made a great impression on M. Larrey. "I lost sight of him afterwards," he observes, "always remembering him however as one of the most restless, the most agitated, and the most excitable beings with whom I had ever come into contact. Did he not then present a moral predisposition to the manifestation of the neurosis which ended in a fatal hydrophobia? For my part, I should be disposed to regard his case, not as an example of rabies with an incubation of two years and a half, but as one of cerebral hydrophobia, or symptomatic of acute delirium provoked or aggravated by the coincidence of the bite of a dog presumed to be mad."

While on the subject of hydrophobia, we may advert to a case related recently to the Paris Hospital Medical Society by Dr. Bucquoy Physician to the Cochin Hospital, in which intravenous injection of chloral was tried. He approves of the condemnation which has been so generally sed of Prof. Oré's proposal to substitute this practice lministration of chloroform in surgical operations,

but he believes that few will accuse him of temerity in resorting to this mode of treating a disease so invariably fatal as hydrophobia. And although the remedy has proved as useless as all others. the case is worth notice as confirming Prof. Oré's statement that large quantities of chloral may be injected with impunity. On the 31st of May, a robust and healthy man, who had been bitten in the hand six weeks before, was brought to the hospital. The symptoms, which had commenced two days before, were fully developed, and the pulse was 120. A solution of chloral (1 to 5) was thrown into the median-cephalic and radial veins by means of an Anel's syringe—this, which held five grammes, being replenished thirteen times; so that thirteen grammes of chloral were injected in the space of an hour and a half. At about the the tenth syringe the stage ef excitement appeared, just as under the use of chloroform; and after the thirteenth, the patient fell into a deep sleep. He slept for about two hours; and some time after he awoke, and while still somewhat under the influence of the chloral, he was able to drink small quantities of water twice. He passed the night calmly, and was able every now and then to drink, especially when a caoutchouc tube was employed. On the 1st of June he was very calm and contented, but on trying to drink the same frightful spasms seized him as at first. These afterwards continuing without exciting cause, and being accompanied by constant restlessness, chloral was again injected by the saphena vein, twenty grammes being employed before sleep was induced. This was very sound · but, after it had lasted two hours, the patient wes seized with a tetanic spasm of the muscles of the thorax, and soon afterwards died. Nothing remarkable was observed at the autopsy; but it was ascertained that in no point of the venous system, which was very carefully examined, was there trace of inflammation, nor were there any coagula, in any of the veins into which the chloral had been injected.

It is in relation to the intravenous injections that the case is interesting, large quantities of chloral having been thrown in with innocuity. This probably arose from the precautions observed in doing this—viz., the employment of a weak solution (1 to 3), the avoiding any denudation of the vein, and the injection of small quantities (five grammes of the solution at a time, and that very slowly.—*Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, OCTOBER, 1874.

HONOURS TO PROFESSIONAL MEN.

Public attention has been drawn to a letter signed M.D. which appeared in the last number of our periodical, which had for its text the bestowal of Imperial honours on a distinguished member of our profession in Canada. That such a course would be most acceptable to the profession in the Dominion there can be no doubt, and that the honour would be worthily bestowed on Dr. George W. Campbell, the venerable Dean of the Faculty of Medicine, McGill University, none will gainsay.

The claims that can be advanced for Dr. Campbell are numerous. He has steadily persevered in the practice of his profession during a period of nearly half a century, during the greater part of that time he has been identified as the Surgeon of this Metropolitan centre. Having been appointed to the chair of surgery in the McGill University in the year 1834 or 5, Dr. Campbell may be looked upon as almost the Father, so to speak, of surgery in Canada. But not only has he earned for himself, deservedly, a high reputation as a surgeon of practical skill and mature judgment in this, his adopted, country, but his reputation has spread far and wide, so that his name is familiar in the neighbouring Republic, in Great Britain, and on the continent of Europe. Another fact which would make the man a worthy recipient of such an honour, is that mainly through his influence has medical education in Canada been elevated to its present high standard, so that it is admitted that the medical graduates of McGill University are amongst the best educated men in their profession on this side of the Atlantic.

We speak of what we know full well, as in a recent visit to old England we felt an honest pride in learning from those whose opinion is worth receiving, that of all Canadian students those hailing from McGill University were amongst the best grounded men in their profession.

Again, we may state in reference to Dr. Campbell, that in times past, whenever the Government of the country sought counsel or advice in consequence of epedimic disaster, he, as holding a prominent position, has been selected for that work. In 1847 he was one of the Commissioners appointed under Imperial warrant, to carry out the relief which was extended to the emigrants who flocked to our shores in immense numbers that year, and who brought with them Typhus Fever of a most virulent and fatal type, following close on the footsteps of famine, the result of the failure of the potato crop in Ireland.

The British public are beginning to regard Canada as a part of the Empire. Hitherto there has existed a vast amount of apathy, a lack of desire to know anything about us. During the past few years the Canadian people have forced themselves under the notice of their fellow-countrymen. By the personal energy and enterprise of some our Canadian Merchants, lines of steamships have been established, so that a voyage across the ocean which formerly consumed two months, can now be accomplished with all the comforts of a river excursion, in little over a week. This has excited a growing interest in the prosperity of Canada, which we are willing to admit is *perfectly disinterested.* We may even repeat the eulogy which, perhaps, has become somewhat stale, that Canada, with all its disadvantages, is destined to play an important part in the world's future history. In view of these facts it will surely be to the best interests of the mother country to cement that union and cherish that affectionate regard with which, as Colonists, we look upon the land of our forefathers.

The people of Great Britain must bear in mind that although colonists we are still Britons, not in name only,

but in feeling, in principle, in action, in everything save and except actual residence. We rejoice when they are glad, and mourn when they are in tribulation. Their Queen is our Queen, and their country our country. Honour and prosperity to England swells our heart with pride, and what brings discredit on the name of England equally affects us. Such then being the relative position between us, it is not too much to expect the conferring of honours on our people, as is customary in the mother land. Honours conferred by the Queen on the profession in Great Britain have invariably given general satisfaction. Of late years these honours have been freely distributed,—not more so than was fully earned by the recipients—but, as compared with former times, hereditary honours have been conferred with no sparing hand. This is sufficiently gratifying, indicating that the profession in Great Britain is recognized as occupying that place of honour which is its due, and which should be conceded to a class of men devoted to the relief of the miseries entailed by disease on their fellow subjects.

On referring to the records of the past we find that the first member of the profession who was created a baronet, was Sir Richard Graves, M.D., somewhere about the year 1645. It is true that Dr. Butts, spoken of by William Shakespere, was knighted by King Henry VIII. From the year 1700 to 1866 thirty-three members only of the medical profession received the honour of a Baronetcy, and the majority of these were men who had served in the army or navy. In Canada, although statesmen and jurists have been the recipients of Imperial honours, the medical profession has been hitherto overlooked. And who is there in any community more worthy of honour than he who, in advanced life, is looked upon with respect, love and esteem, who is regarded as another order of being, who in distress, is the comforter, in pain and suffering the unremitting attendant, the alleviator, in difficulty and danger—the one above all others ready and willing to sacrifice comfort, repose, health—aye, even life

itself—in perfoming a sacred duty without fee or reward, ready and willing to be spent to the very last in performing his allotted task. Such is the life, such the action of the true and faithful medical and surgical practitioner.

MONTHLY NURSES.

The difficulty complained of by our correspondent BETA has often been experienced by ourselves, and we doubt not by many of our confreres. It is customary with nurses in this city to carry round their card of address, and leave one with each Medical Practitioner. Some of our medical friends systematically preserve a list of these names and addresses and freely give them to any applicant. This, however, is by no means a common custom, and when a necessity does arrive, too frequently those seeking the aid of nurses are obliged to run the town round before their efforts are crowned with success. It has been our idea to publish a list of nurses and their residences in a column of our journal, this we would repeat from month to month, and of those who are engaged in their business any one month, the fact could be intimated in such issue of the Journal. It only requires a ltttle concerted action on the part of the nurses themselves, and of our medical friends. We would head the page, monthly nurses, with the month indicated: Mrs.— No. 7 Bonaventure st., engaged, or when the nurse is not employed, a blank would appear. By this means a record would be preserved, constantly on hand and of use to the practitioner and to the public generally.

With regard to male-nurses we think ample room exists in Montreal for this class of persons, and we feel certain that it has but to be commenced by a few industrious individuals to render it a success. We do not think a nurses' home would be advisable as we have a lively idea that there are many Sairey Gamps amongst this "very useful class of women," and judge that it would hardly answer. If a home were established we fear the conventional tea-pot would be

a prominent article of furniture in the establishment, and possibly its contents might be imbibed out of stemless wine-glasses as of old—we fear, also, that the many conflicting elements, or natures found to exist with this "useful class of women" might, if thrown together, result in an occasional visit to our worthy Recorder's court, and a showing up in the only religious daily, to the manifest amusement and instruction of the numerous readers of that *estimable* journal.

VACCINATION EXTRAORDINARY.

We have received a letter from Dr. Coderre, in which he requests us to reproduce in our columns an article which appeared in the "La Minerve" on the 7th August last. We would willingly do so, if in any way it would place the conduct which Dr. C. has been pleased to assume towards a brother practitioner in a more favourable light. Dr. Coderre has, through zeal in his anti-vaccination views, placed himself in a very unenviable position. He has not only attacked a system, which is admitted on all hands to be beneficial and necessary to stamp out a virulent and loathsome disease, but he has gone farther and made a direct personal attack on a brother practitioner. The public do not care about Dr. Coderre's opposition to vaccination. They admit he is sincere in his views, but regard him as a fanatic, who would sacrifice everything even his own life in forcing on others his own convictions; but the important part of the whole matter, as far as Dr. Coderre is concerned, is that his convictions are not shared in by his fellow-citizens—he is consuming time, which to be practical, is money to every man, and indulging in much vexation of spirit, which renders a man dispeptic, splenitic, morose, miserable; deprives him of sleep, and with some would [redacted] them to curse the day wherein they were born,—as [redacted]iah of old. We cannot see that we are called [redacted]h the effusion of Dr. Coderre; he has

appealed to the public in a daily paper, and as onr Journal is devoted to the scientific advancement of our profession, we fear that the article sent for publication would not be received with anything like satisfaction by our subscribers, and therefore we are forced to decline the honour of giving up several columns of our reading matter to this subject. We give in another column a report of a public meeting, and there our readers will observe that Dr. Coderre and his followers were publicly censured by a large majority of their fellow practitioners for unprofessional conduct. We cannot characterize the means employed by Dr. Coderre and his disciples to mislead the public by the circulation of an exaggerated and untruthful photograph—it was disgraceful.

THE LATE VACCINATION CASE,

In response to an invitation, issued to the Profession throughout the city, by Dr. Larocque, one of the Health Officers, a number of gentlemen met in the Jacques Cartier Normal School on the afternoon of the 15th inst., to take into consideration a case of vaccination in a child, said to have been followed by injurious results.

Dr. Hingston was called to the chair, and Drs. Roddick and Grenier were requested to act as secretaries.

Dr. Larocque being called upon by the chairman, stated that he vaccinated the child in question on the 22nd July last, with lymph taken by himself in the presence of Dr. Thompson, from a heifer a month previously. The mother failed to return with the child in a week as directed, but came after a fortnight or more, and stated that a Dr. Jacques was of the opinion that *mortification* had set in, and the child would lose its arm. A bandage which had been ordered to be applied to the arm by the last named medical gentleman was removed, and beneath were found the vaccination sores suppurating nicely, though perhaps rather indolent looking, no doubt from the indifferent state of health of the child. These observations were verified by

three or four other members of the profession who were asked to see the case about this time.

While things were in this condition, it appears that Dr. Coderre and some half dozen of his anti-vaccination disciples got wind of this *frightful* example of the evils of the system, and commenced to make capital of it. They first had the child photographed with the affected arm placed prominently forward, and then with the assistance of an artist, whose imagination they put also on the stretch, they depicted the upper arm as in a condition of sphacelus, making imaginary sections to endeavour to prove that the sloughs extended to the bone. The photograph and colourings were exhibited.

Drs. Kennedy and Trenholme stated that they saw the arm when it probably looked most unfavourable, and they could move the skin with the ulcers freely over the subjacent cellular and muscular tissues. They concurred in saying that there was nothing in the condition of the child to create such alarm—she played about, ate well, slept well, there was no enlargement of the glands of the axilla to indicate constitutional mischief—nothing in fact to prove that there was a shadow of basis for repudiating vaccination.

Drs. Coderre, Gauthier, and some half dozen others attempted to prove that they had seen the arm in a much worse condition than that described by the former speakers, and insisted that the drawings were not over coloured.

Dr. G. W. Campbell said that unless the child was actually dead, or at least the arm removed from the body, and sections of the part regularly made, these delineations must be pronounced incorrect, and imply the work of an artist drawn from imagination.

The chairman now stated that the child under discussion was in the building and if the meeting so decided it should be brought in.

The child was accordingly exhibited, all the members examining it in rotation; immediately after which the following resolution moved by Dr. G. W. Campbell, seconded by Dr. Rottot was placed in the hands of the chairman.

"That after having carefully examined the arm of the child Labelle, vaccinated by Dr. Larocque in July last, we are of opinion from the appearance of the arm now presented, that there has been no extensive destruction of tissue, and no evidence of any injurious virus having been introduced into the system; and that the scar presents the ordinary appearance of healthy vaccination."

Dr. Campbell in speaking on the motion said that he who, having any pretensions to being a surgeon, would call that scar a syphilitic one, ought to be turned out of the profession. He further stated in the course of his remarks that he never knew, during the past forty years, of a bad case of small pox occurring to a single one of the large numbers vaccinated by him.

Dr. Rottot stated that, notwithstanding the general impression, he did not believe it was the intention of Dr. Coderre and his friends to injure the reputation of their brother practitioner Dr. Larocque, but to carry out their anti-vaccination programme.

An amendment to the motion was then proposed by Dr. Raymond seconded by Dr. Hamelin "That in this case of the vaccination of the child Labelle, vaccination has been proved to have been followed by bad results."

The following voted for the amendment: Drs. Coderre, Beaudry, Brosseau, Durocher, Barsalou, Craig, Gauthier, Jacques, Archambault, Filiatrault, Hamelin, Raymond. Dagenais, Vilbon, Gariepy, Fafard, and Dubout. Total 17.

The following voted *nay:* Drs. G. W. Campbell, Rottot, Thompson, Trenholme, Howard, MacCallum, Rollin, Girdwood, Larocque, Rodger, Genand, David, Perrault, McDonell, Mondelet, Reed, Fenwick, Bessey, Barnes, Kennedy, O'Rourke, Ed. Robillard, Gagnon, Millette, Dugdale, Nap. Robillard, Leblanc, Desmarteau, Browne, Bourque, Mathieu, Leduc, Mount, Beaubien, Grenier, Rivard, Ricard, Laramee, and Roddick. Total 39.

The motion was carried by a similar contra-division.

Dr. Fenwick now moved, seconded by Dr. Ed. Robillard,

"That in the opinion of this meeting, the action of certain medical gentlemen in publishing and circulating photographs to represent alleged injurious effects of vaccination is strictly unprofessional and highly censurable, as calculated to mislead the public, and as adverse to the best interests of the science of the day."

Dr. Howard quite coincided with the spirit of this motion, and thought that the medical and not the public press should be made the medium of discussion of such matters appertaining to the profession.

After some difficulty, owing to the confusion produced by Dr. Coderre and his party leaving the room, Dr. Fenwick's motion was put and voted for, by the same persons who had carried the former motion, with the addition of Dr. Gariepy from the other party, thus increasing the former total to forty.

A vote of thanks was heartily tendered Dr. Hingston for his able conduct in the chair, after which the meeting adjourned.

Books Received for Review.

The following works have been received from the publishers, and shall receive an early notice:

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in every Emergency. By Charles Clay, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, England. 8vo. pp. 328.—Philadelphia, Lindsay & Blakiston, 1874.

The Physician's Dose and Symptom Book, containing the doses and uses of all the principal articles of the Materia Medica and officinal Preparations. By Joseph H. Wyths, A.M., M.D., &c. Philadelphia, Lindsay & Blakiston, 1874.

Lectures on the Clinical uses of Electricity, delivered in University College Hospital. By R. Russell Reynolds, M.D., F.R.S., &c., &c. 8vo. pp 118. Philadelphia, Lindsay & Blakiston, 1874.

Surgical Emergencies, together with the Emergencer's Attendant, on Parturation and the Treartment of Poisoning. By W. Paul Swain, with eighty-two illustrations. 8vo. pp. 189. Philadelphia, Lindsay and Blakiston, 1874.

Materia Medica, for the use of Students. By John B. Biddell, M.D., Professor of Materia Medica, Jefferson Medical College. —— —— Sixth edition, revised and enlarged. 8vo. pp. 435. Philadelphia, Lindsay & Blakiston, 1874.

A Practical Treatise on the Diseases of Women. By T. Gavelin Thomas, M.D., Professor of Obstetrics Col. : Physician and Surgeon, New York, &c., &c. Fourth edition, 8vo. pp. 801. Philadelphia, Henry C. Lea, 1874.

A Treatise on Pharmacy : designed as a text book for the Student and as a guide for the Physician and Pharmacist. By Edward Parish. Late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy. 8vo. pp. 977. Philadelphia, Henry C. Lea 1874.

A Conspectus of the Medical Licenses: comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine and Surgery, and Obstetrics, for the use of Students. By Henry Hartshorne, A.M., M.D. Second Edition. 8vo. pp. 1024. Philadelphia, Henry C. Lea, 1874.

Essays on Conservative Medicine, and kindred topics. By Austin Flint, M.D., Professor Theory & Practice of Medicine, Bellevue Hospital Medical School. 8vo pp. 214. Philadelphia Henry C. Lea, 1874.

Electro-Therapeutics, a condensed Manual of Electricity. By D. F. Lincoln, M.D., Physician to the Boston Dispensary. 8vo. pp. 186. Philadelphia, Henry C. Lea, 1874.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Three cases of well marked Moral Insanity, with remarks; reported for the Canada Medical and Surgical Journal.

By HENRY HOWARD M.D., Medical Superintendent, of the Provincial Lunatic Asylum, St. Johns, P. Q.

It is now a recognized fact, by all scientific medical men that there can be no case of Insanity, from any exciting cause whatever, if there does not exist already, an insane neurosis, that is a predisposition, in either, or both, of the intellectual and moral faculties, or more properly speaking the intellectual and moral organization, from which these faculties come. Of course there is the exception, where there is organic disease, such as apoplexy, and softening of the brain, or a disorganised state of the brain from direct injury. The next well established fact is, that all cases of Insanity, whether it be intellectual or moral, or a combination of both, is produced by physical causes. Some physical disease of the nervous centre must exist, consequently insanity to be treated, on scientific principles, must be treated both physically and morally. There is not much difficulty in diagnosing a case of insanity depending upon direct organic disease, but it is not always very easy, to diagnose a case of insanity, particularly if it is moral insanity, from functional derangement. It is so very easy to confound moral insanity, with moral depravity, or what we call wickedness. The following quotation is from Maudsley on "Responsibility in Mental Diseases."

"This is a form of mental alienation which has so much the look of vice or crime that many persons regard it as an unfounded medical invention. Much indignation therefore has been stirred up where it has been pleaded to shelter a supposed criminal from the penal consequences of his offences; and judges have repeatedly denounced it from the bench as 'a most dangerous medical doctrine' 'a dangerous innovation' which in the interest of society should be reprobated. The doctrine has no doubt been sometimes used improperly to shelter an atrocious criminal, but of the actual existence of such a form of disease no one who has made a practical study of insanity entertains a doubt."

"Notwithstanding prejudices to the contrary, there is a disorder of mind in which, without illusion, delusion, or hallucination, the symptoms are mainly exhibited in a perversion of those mental faculties, which are usually called the active and moral powers, the feelings, affections, propensities, temper, habits, and conduct. The affective life of the individual is profoundly deranged, and his derangement shows itself in what he feels, desires, and does. He has no capacity of true moral feeling, all his impulses and desires, to which he yields without check, are egoistic; his conduct appears to be governed by immoral motives. which are obeyed without any evident desire to resist them. There is an amazing moral insensibility. The intelligence is often acute enough, being not affected otherwise than in being tainted by the morbid feelings under the influence of which the persons think and act. Indeed they often display an extraordinary ingenuity in explaining, excusing, or justifying their behaviour, exaggerating this, and ignoring that, and so colouring the whole as to make themselves appear the victims of misrepresentation and persecution. Their mental resources seem to be greater sometimes than when they were well, and they reason most acutely, apparently because all their intellectual faculties are applied to the justification, and gratification of their selfish desires."

Every medical superintendent of Lunatic asylums sees

these cases of moral insanity, some of them, however, more marked than others. The three following cases at present under my charge, are particularly well marked.

Case 311 on the Register, young man aged 24, admitted January 1873. History as given by his father. Was a well educated, classical scholar, had always been a good, obedient son, and of good moral conduct. Three months previous had some words with his employer and left his employment, became depressed in spirits, gradually became slovenly in his person, and morose in his manners, and his whole nature seemed to change. He became immodest in his actions, and would expose himself before his mother and sisters, endeavoring to justify his conduct by argument. His intellect appeared as clear as ever it was. His sisters feared to have him in the house, consequently his father brought him to the asylum.

He has been with me now for nearly two years, his intellectual faculties have never given way, his moral conduct is improved, yet poor fellow he is guilty of that which I fear if continued, will in time destroy all his faculties.

Case 344 on the Register. Young man aged 20. Exactly a similar case to the first, history the same, conduct in asylum the same, with this difference, only, that the latter for a time, was under the impression that his father, and everyone else, wanted to poison him.

Case 358 on the Register, a case of *Dipsomania.* A girl aged 25. admitted May 12, 1874. History; has been in jail 63 times in 12 years, once in the penitentiary, four times in Beauport Lunatic Asylum, is blind of an eye, having gouged it out herself with her thumb. After being with me for a couple of weeks she became perfectly well, she is perfectly well now, her conduct in the asylum is irreproachable, and she speaks as intelligently as any one can. She tells me that when the *fit* comes on her for strong drink, she must have it, no matter what is the consequence, she will have it, though she knows it sets her, not drunk, but mad, and she would take it though she knew it would cost her, her life, and she

would commit any crime to obtain it. Poor thing; I w[illegible] take care that it will be a long time before she gets t[illegible] chance. This is not the only case of this sort I have ha[illegible] under my charge, I have in my mind now, the mo[illegible] thorough gentleman I ever knew, one of the most lovabl[illegible] men I ever met, so good, so kind, so full of the milk o[illegible] human kindness, yet poor fellow, when this thirst for drin[illegible] comes on, he gets just as mad as the girl whose case I hav[illegible] given. His case is hereditary.

It will be at once assumed that I have an object in view in writing to prove that there is such a disease as moral insanity. Most assuredly I have, one is to draw public attention to the fact, that there is such a disease and that the public should know it, and when they hear of an extraordinary, and an unaccountable crime being committed, before they enter into judgment, and condemnation, upon the perpetrator, they will in charity, wait, and see if he is not a victim of moral insanity. And this brings to my recollection that some time since there was a man, I think by the name of Bowen, condemned in Napanee, Ont., to four months imprisonment, and to be flogged twice, for having attempted to rape his own child. When we hear of such an unnatural crime, we naturally look for a case of moral insanity, and I beg that you will, through your Journal ask some of our confreres in that part of the country to give a report of the history of that man, his parentage, and, if possible, the history of his grand parents. Such a history may throw some light upon the case, that would be useful in a scientific point of view.

In conclusion, as man's intellectual and moral sensibilities are dependent upon his intellectual and moral organization, and as these organizations, particularly in childhood, can be improved by a proper physical and moral education, should there not be great caution used on the part of parents and teachers, in the training of children? Have parents and teachers been cautious enough in this particular? Have they seen the necessity, that if they would have a strong

mind, they must have a strong and healthy body? Have they discriminated between the child of high mental organization, and the child of low? Have they discovered the fact, that the treatment, which is good for one, is destructive of the other? I fear not, I fear these things have not been properly attended to, I fear that pride and ambition, have taken the place of prudence and justice, and that because of this, we find insanity so much upon the increase all over the world, more particularly in Christendom. If such is not the case, it will be very hard to say what is the cause, for certainly for the last century there have been fewer marriages of consanguinity than in any previous century, and moreover, I believe, bad as we are, less of drunkenness and general immorality.

Reviews and Notices of Books.

The Physician's Visiting List for 1875. Twenty-fourth year of its publication. Philadelphia: LINDSAY & BLAKISTON.

We are indebted to Messrs. Lindsay & Blakiston of Philadelphia, for a Physician's visiting list for twenty-five patients per week, for the year 1875. This is the twenty-fourth year of the publication of this little book, and in common with many others we can testify to its usefulness, simplicity and general completeness.

It contains among other things, an almanac for the year 1875; Marshall Hall's Ready Method in Asphyxia; Poisons and their antidotes: Table for calculating the period of Utero-gestation; blank leaves for visiting list; blank leaves for monthly memoranda, for obstetric engagements, for a record of births and deaths, and for general memoranda &c. &c. It is of a very convenient size for carrying in the pocket, and we can recommend it as the most compact and handy visiting list which we have yet seen.

Electro-Therapeutics; A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., 8 vo. pp: 186. Philadelphia: Henry C. Lea, 1874.

We have here, in a small compass, a great deal of valuable information upon the subject of Medical Electricity. The author appears to have consulted almost all the recent writers on the subject, and his own experience in the treatment of nervous diseases by electricity seems to have been extensive. In chapters I. II. and III., we have a preliminary statement of the Physical laws, relating to or governing electricity; a short account of the various modes of generating it, and of its Physiological actions. Chapter IV. treats of Electricity as a means of diagnosis, and is, although short, very suggestive. "The main value of electricity," says Dr. Lincoln, "as an aid to diagnosis, lies in the indications its reactions furnish with respect to the seat of a motor lesion." If the lesion be central, the paralyzed motor nerve will still respond to electricity, but if the lesion be peripheral, the nerve loses wholly or in part its power of responding to electric stimuli. Of course the two lesions may coexist. In Chapter V. the methods of applying electricity are described, and diagrams are given, showing the "*points d'election*," which are the points most advantageous for producing given muscular contractions. These points correspond exactly to the places where the motor nerves enter the muscular tissue. Chapter VI. is devoted to the Therapeutics of Electricity, and describes its use in the treatment of both medical and surgical diseases. This is a thoroughly practical chapter and is the most instructive part of the book. Chapters VII. and VIII. are short, and are devoted to cautions in the use of electric batteries and hints regarding apparatus.

A study of this little book will be very useful to the general practitioner, who has not time to devote to reading larger works on the subject, and who wishes to employ what is now recognised as a valuable therapeutic agent.

Lectures on the Clinical Uses of Electricity.—Delivered in University College Hospital. By J. RUSSELL REYNOLDS, M.D., F.R.C.P., Professor of the Principles and Practice of Medicine in University College, &c., &c. Second Edition. 8vo. pp. 118. Philadelphia, LINDSAY & BLAKISTON, 1874.

We learn from the preface that these lectures, forming a special course, were delivered by Dr. Reynolds during the summer of 1870, in University College Hospital. A short-hand report by Dr. Gowers appeared at the time in the columns of the *London Lancet*. Subsequently, at the request of many of his pupils, Dr. Reynolds published a revised edition of the lectures with such additions and emendations as appeared to be desirable. The author wishing to render the work strictly practical has avoided all debatable ground, confining his remarks as closely as possible to ascertained facts as bearing on the clinical uses of electricity in the diagnosis and treatment of disease.

The opening chapter consists in general remarks on the clinical uses of electricity, and here the author points out in what cases this agent can be rendered efficient in determining the presence or absence of disease. For instance in alleged paralysis of one limb, the application of the electric current will detect a difference between the two should such a state of things really exist, so that this agent is most valuable in the discovery of a condition known to exist, and which will occasionally give much trouble and perplexity,—we allude to "sham;" but, again, the necessity of caution is recommended, as it is not always advisable or just to accuse a patient of "humbug," or malingering, simply because we are unable to detect an electric difference between two limbs, one of which the sufferer states he cannot move.

There are other conditions, however, in which electricity acts as a therapeutic agent of great value—cases in which its use will apparently effect an instantaneous cure. We say apparently, because although a change marked and

permanent is the result of a single application, yet the existence of any actual morbid condition has been wanting. It is precisely this class of patients that the charlatan delights to secure. By the use of his wonderful battery a person who has been suffering, perhaps for months, from hysterical aphonia, will by a single application regain her voice. Again, there are other conditions which are relieved by the applications of this therapeutic agent. Pain may be assuaged, spasms relieved, and paralysis ultimately removed. A third group of cases there are in which electricity will fail to cure, but in which the progress of the disease will be arrested; and lastly, there is a class of cases in which the application of electricity can do no good, but on the contrary much harm may follow its use. The author observes, "The general facts which I wish you therefore to bear in "mind with regard to the two main directions in which "electricity is useful are these: That like other modes of "examination or treatment, this one has its limits, and that "only by its appropriate employment within these limits "can it be of any real service in either diagnosis or thera-"peutics."

We have next a description of the various forms of electricity in clinical use: as first, the Franklinic, static or friction electricity; under this head is included the electric bath, the shock, the application of sparks and the use of the Leyden vial. Secondly, Galvanic electricity, either the constant or the interrupted current. The meaning of the terms direct and inverse are explained, and other practical observations are noted. Thirdly, that form of electricity known as faradization, or "that particular kind of which Faraday was the exponent." This is of very high tension, and resembles Franklinic electricity more closely than it does the galvanic current. This form of electricity has been known or distinguished by the several terms, "induced electricity," "magneto-electric," "voltao-magnetic," and "voltao-dynamic." With regard this form, "there are two terms commonly us

primary and secondary,—this for clinical purposes is almost a useless distinction." The word "primary" appears to be an improper use of that term, "for the current so named is not a primary current in the sense of being a simple battery current;" it is a battery current strengthened by induction. The secondary current is when you have an induction from an induction, and is therefore secondarily induced, the difference between them clinically is mainly one of intensity, the secondary possessing greater intensity than the primary.

The author next proceeds to review the various clinical effects of electricity when applied. These he divides into, first, its chemical effects, such as the production of blister, coagulation of the blood, its effect as a cautery, and its use in dissolving calculi; and secondly, its vital effects, as its action on the nerves, either calling into play nervous action which has been partially lost, or in diminishing the activity of a nerve when in excess. On muscles, electricity may with advantage be applied either in cases where there exists morbid inactivity or where there is a state of spasm either tonic or clonic. Electricity, from whatever source, may be applied to any one muscle or group of muscles through the skin or through the nerve trunks which supply the muscles. On the skin, it will increase the activity of the capillary circulation, in cases of partial paralysis, or in cases of languid circulation. All the forms of electricity are of benefit in these cases. The continuous current will moreover have a decided effect on the deeper tissues of a limb, so that the nutrition of the muscles and most probably of the nerves may be improved. Another beneficial effect that will undoubtedly result from the use of electricity is the general improvement of the nutrition of the part to which it is applied. The bulk of a wasted muscle may by this means be increased, whether the wasting has been due to degeneration of the muscular tissue,—disease or accidental division of its nerve, blood poisoning, of the spinal cord or brain, or disuse, as in long-lsy. We next have a chapter on the diagnostic

uses of electricity, and another on the clinical uses of electricity, and an appendix in which is described the requirements of an electrical room We have perused this little book with much interest and can heartily recommend it for its practical value. Not only will the reader, in its pages ascertain what diseases or conditions of the system are benefitted by the use of electricity, but he will here see what form of electricity will be most advantageously employed.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M. D., London. Fellow & Lumleian lecturer (1873), Royal College of Physicians; Examiner in Obstetrics and the diseases of women at the University of London and the Royal College of Surgeons: Obstetric Physician and Lecturer on Obstetrics and the diseases of women to St. Thomas's Hospital. With one hundred and sixty-nine illustrations, 8 vo. pp., 791. Philadelphia, Henry C. Lea, 1874.

This subject, as Dr. Barnes remarks, is indeed wide and important, not only in its direct application to the relief of the special diseases it embraces, but also in its endless and interesting relations to the physiological and pathological history of women. "A physician cannot possibly understand many of the disorders of the organs of assimilation, of respiration, of circulation, and especially of the nervous system, without a careful investigation of the condition of the reproductive organs." How very frequently, indeed, do we see disturbances in remote parts treated as arising from a variety of suspected local disorders, when in fact they are entirely originated from some trouble, either functional or organic in the generative organs. Admitting this, as we think every one must do, we recognize the paramount importance to the practical physician of possessing a sufficient and satisfactory knowledge of the various affections to which these organs are liable, in orde

able to assure himself of the presence or absence of any of them in any given case. Now, although we have a goodly number of treatises upon diseases of women, yet this branch has justly been denominated by the author "one of the less generally cultivated departments of medicine"—and therefore it is that there yet remain in it so many points of unsettled pathology and undecided questions of treatment. Dr. Barnes, in this book, brings to us the results of his extended researches towards explaining matters appertaining to pathology, and of his immense experience towards determining the value of various lines of treatment. An introductory ground work is laid in the commencing chapters by a most careful description of the general and minute anatomy of the whole of the generative organs, and then all the known functional and organic derangements of these organs are treated of *seriatim*. It is called a *Clinical* history and, although the arrangement of the volume is systematic, yet the great mass of the author's remarks come to us as though made (as indeed they have been) from observations of his own and thus possess all the force of bedside teaching by a master of his art. Hardly a subject but is illustrated by the recital of original cases from the author's own notes, each tending to bear out the point to be impressed. The functional disorders, Amenorrhœa, Dysmenorrhœa, Menorrhagia, &c., are first treated of in the most exhaustive manner, including special and practical notices of such other affections as vaginismus, dyspareunia, &c., together with the signifiance to be attached to each of these. Special chapters are also devoted to "the menstrual irregularities of the climacteric epoch"—"the influences of ovulation and menstruation in evoking morbid influences"—"the disorders of senility or decrepitude." Eight chapters are then devoted to a description of the abnormal conditions and organic diseases of the ovary—special attention being given to the diagnosis and treatment of ovarian cystic disease under every possible variety of cir-

cumstances. Now that ovariotomy is one of our recognised operations and it is so frequently performed, it behoves every surgeon to be freely acquainted with all the difficulties which may surround the diagnosis of a difficult case and the dangers to be met with in the performance of the operation. Much can here be learnt to assist him in forming an accurate and confident opinion of the exact nature of the abdominal contents and in avoiding those perils which are likely to beset his path.

Next we have treated of, the organic disorders of the Uterus and Uterine ligaments—inflammatory, developmental and mechanical. Perhaps one of the most valuable and complete of these chapters is that upon pelvic hæmatocele, the frequency of which is not even yet generally admitted, but which, through greater care and minuter examinations is being more and more frequently recognized. Numbers of cases, presenting a variety of phases, are alluded to in the text. All the displacements and the different modes of managing each, are succesively described, and then the Tumors of the Uterus are taken up and chapters subsequently devoted to Cancer and Tubercle of the Uterus. Finally we have a section describing the diseases of the Vagina and of the Vulva.

Dr. Barnes deserves the thanks of the entire medical community for the production of this treatise through which every physician interested in Gynœcology is at once put in possession of the fruits of the immense toil and vast experience of one who has done so much to enrich this particular branch of medical science.

The book is extremely well printed and the illustrations are original and very valuable.

The Physician's Dose and Symptom Book. By JOSEPH H. WYTHES, A.M., M.D., Author of the "Microscopist" &c.—Eleventh Edition, 8 vo., pp., 236;—Philadelphia, Lindsay and Blakiston, 1874.

We have here the eleventh edition of this little book, which

appears to have been received with great favour by our American professional brethren. In this edition the same arrangement has been followed as in the last, but it has been revised and compared with the U. S. Dispensatory &c., and the author has endeavoured, as he tells us, "to embody the recent additions to the Materia Medica, as well as every article likely to be useful." In this comprehensive undertaking, he appears to have met with a limited amount of success, and we have no doubt that many a hard worked practitioner will find it a useful little work to have on his study table. In Section V. we have an Index of Diseases and Treatment, after Tanner. In the next section we have an Alphabetical List of Medicines with their uses, doses &c., and in section VII. a Pharmaceutical Arrangement of the Materia Medica. At this point we think that the author would have been wise to have stopped. The remainder of the work is occupied with a Table of Symptomatology and with Outlines of General Pathology and Therapeutics. These we think should be systematically studied in more comprehensive works, and elucidated by careful clinical observation. We think that this part of the work so far from being useful, may become positively injurious, by inducing carelessness, and a slip shod mode of practice. We are far from claiming for Medicine the honours of an exact science, but we would gladly see the Practice of Medicine followed in a scientific spirit. This end is not to be attained by the constant use of manuals like the present, although we should not like to see this one consigned to the limbo which to our mind is the just portion of the whole tribe of "Remembrancers."

Books Received for Review.

Therapeutics and Materia Medica.—A Systematic Treatise of the action and uses of Medicinal agents including their description and history. By ALFRED STILLE, M.D., Professor of Theory and Practice of Medicine and of Clinical

Medicine in the University of Pennsylvania &c., &c., &c. Fourth Edition thoroughly revised and enlarged. In two volumes 8 vo: vol. 1, pp. 968; vol. 2, pp: 976. Philadelphia: Henry C. Lea, 1874.

Essentials of the Principles and Practice of Medicine; a hand book for students and practitioners. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, &c., &c. Fourth Edition: thoroughly revised, with one hundred illustrations. 8 vo. pp: 548. Philadelphia: Henry C. Lea, 1874.

Clinical Lectures on Various Important Diseases; being a collection of the Clinical Lectures delivered in the Medical ward of Mercy Hospital, Chicago. By MATTHEW S. DAVIS, A.M., M.D., Prof. Principles and Practice of Medicine and Clinical Medicine in Chicago Medical College. Edited by Frank H. Davis, M.D., second Edition 8 vo. pp: 287. Philadelphia: Henry C. Lea, 1874.

Periscopic Department.

SURGERY.

Nasal Catarrh; its Pathology and Treatment. By EDWARD C. MANN, M.D., New York.

As the nasal mucous membrane is especially liable to become involved in the nutritive and functional disorders characteristic of catarrh, it is proper to look briefly at the anatomy of the region, the diseased condition of which we propose to treat.

The pituitary or Schneiderian mucous membrane, which lines the nasal cavities, is continuous externally with the skin, through the anterior nares, and with the mucous membrane of the pharynx through the posterior nares. From the nasal fossæ it is continuous with the conjunctiva proceeding through the nasal duct and lachrymal canals. It may also be traced proceeding through the Eustac e being

continuous with the lining membrane of the tympanum and mastoid cells. It is also continuous with the frontal, ethmoidal, and sphenoidal sinuses, and antrum maxillare, through the opening in the meatuses. The nasal mucous membrane is thickest and most vascular over the turbinated bones and septum, and is very thin where it lines the intervals between the spongy bones, and also on the floor of the nasal fossa. At the upper part of the nasal fossæ the mucous membrane is covered with tessellated epithelium corresponding with the distribution of the olfactory nerve, but the remainder of it is covered with ciliated epithelium, except at the entrance to the nares. The nasal mucous membrane is abundantly supplied with mucous glands, the ducts of which open upon its surface. The arteries supplying the nasal fossæ are the anterior and posterior ethmoidal, from the ophthalmic, which supply the ethmoidal cells, frontal sinuses, and roof of the nose; the spheno-palatine, which proceeds from the internal maxillary artery, and supplies the mucous membrane covering the spongy bones, the meatuses, and septum; and, lastly, the alveolar branch of the internal maxillary artery, which supplies the lining membrane of the antrum. The olfactory nerves, which preside over the sense of smell, break up into bundles of primitive fibres, which bundles are contained in nucleated sheaths, and are composed of the finest fibrillæ, which are held together by finely granular matter. These bundles of nerve-fibres penetrate into the epithelial layer, pass outward between the epithelial cells, and probably terminate by free extremities. The finest fibrillæ of the olfactory nerves, after penetrating to the epithelial layer, are supposed to surround the epithelial cells on all sides, and with them reach the surface of the epithelial layer. The large epithelial cells are seen by the microscope to be covered with fine longitudinal striæ over their entire length, which are supposed to be the terminal extremities of these fibrillæ of tory nerves.

tarrh may be defined as an acute catarrhal in-

flammation of the mucous membrane which lines the nasal cavities, beginning with hyperæmia of the mucous membrane, followed by swelling, accompanied at first by excessive dryness of the mucous membrane, and afterward by a secretion, which is at first thin and watery in character, and afterward, if the disease progress to any extent, becomes muco-purulent or even purulent in character, giving rise to ozœna, which term is used to denote any chronic discharge of a fetid character from the nasal cavities.

At the outset of an attack of acute nasal catarrh, the capillary vessels of the nasal mucous membrane are distended with blood, the tissues are infiltrated, and from the mucous membrane, swollen by congestion and œdema, is discharged a thin, colorless saline secretion. After the primary swelling and congestion have subsided, this secretion becomes thickened from the addition of young cells. If the disease runs into the chronic form we shall find the nasal mucous membrane considerably thickened, especially the mucous membrane covering the turbinated bones. The swellings of the nasal mucous membrane do not have their seat in the mucosa, but are œdematous infiltrations of the sub-mucous connective tissue. The swelling is dependent upon the amount of hyperæmia, so far as depends upon the increase of volume of the vessels and upon a more abundant saturation of the mucous membrane with serum. After this condition, which characterizes acute catarrh, the mucous membrane may return completely to its normal condition, but it is liable, upon very slight irritation, to again take on catarrhal inflammation; and such relapses are much more difficult to treat than was the primary disease. Each relapse increases the proliferation of cells in the sub-mucous connective tissue. The epithelium and mucous glands gradually enlarge, and the mucous membrane passes into an hypertrophied condition. In chronic nasal catarrh we find in many instances catarrhal ulcers, superficial as a rule, but which in scrofulous and cachectic patients may penetrate more deeply, destroying the perichondrium and periosteum,

and giving rise to caries and necrosis of the cartilages and bones of the nose. In these cases, the secretion from the nasal passages is extremely offensive, requiring the use of deodorizing solutions of chloride of lime, or permanganate of potassa, which may be used with the posterior nasal syringe or nasal douche. A solution of glycerine containing iodine and iodide of potassium has rendered us great service in these scrofulous conditions, by aiding in the detachment of thick crusts, exfoliating bone, etc. In cases where the mucous membrane is much thickened, applications of nitrate of silver will often afford relief; but where there is relaxation of the mucous membrane, or where it has assumed the condition of mucoid polypous outgrowths, which block up the nasal passages, the best plan will be to remove such growths, either by twisting them off by forceps, or encircling them with a wire snare, and then cutting them off by drawing the loop tight, after which the remaining portions may be cauterized with nitrate of silver. The senses of smell and taste are perverted, and in chronic cases it is not uncommon to find complete anosmia resulting from the effect produced bythe long-continued inflammatory process upon the terminal distribution of the olfactory nerves.

The symptoms are very varied in character, affecting some persons but slightly, while others suffer intensely from the severity and rapid recurrence of these attacks. The symptoms at the outset are a sense of dryness, irritability and obstruction in the nostrils, with difficulty in nasal respiration. There is also very severe pain in the region of the frontal sinuses, and, if the inflammation has extended to the Eustachian tube, the patient will complain of roaring noises in the auditory canal, with some pain and dullness of hearing. There will be also a constant disposition to sneeze, which is kept up by the irritation of the inflamed mucous membrane by the saline secretion. This irritating property of the watery secretion is due to the quantity of [illegible] contained in it, and very often it causes excoriation [illegible] per lip as it flows over it.

In chronic nasal catarrh the symptoms differ entirely, the prickling sensation in the nose, sneezing, frontal pains, and febrile action, being generally absent, while in their place we find obstruction of the nasal passages, owing to the mucous membrane being relaxed, and the membrane covering the turbinated bones hypertrophied and thickened.

There will also be found accumulations of thickened crusts of inspissated mucus at the entrance to the posterior nares. The secretion of chronic catarrh is of a mucous, mucopurulent, and (in cases of ulceration of mucous membrane) purulent character. In cases where there is no ulceration of the mucous membrane there is generally no fetor attending the discharge from the nasal passages; while in scrofulous or syphilitic cases, attended with caries, or necrosis, or even ulceration, we generally perceive it, even at quite a little distance from the patient. The length of an attack of acute nasal catarrh varies from two or three days to a week or two; while the chronic form of nasal catarrh is an exceedingly obstinate disease, lasting sometimes for years. In view of the predisposition of nasal catarrh to assume a chronic form, and of the difficulty experienced in eradicating it when it has lasted for some months, it becomes a matter of great interest to those interested in diseases of the throat and respiratory organs. By means of rhinoscopic examinations we are enabled, much more accurately than formerly, to determine the seat and progress of nasal catarrh, and to make local applications to the mucous membrane covering the turbinated bones and septum, which are the parts especially liable to take on ulceration; and it is here also that we find the greatest thickening and hypertrophy of the mucous membrane, resulting sometimes in the production of mucoid polypi, These polypi owe their production to a circumscribed hypertrophy of the mucous membrane, which is especially concentrated upon the glands. The principal mass of the tumor is formed by hypertrophic glands, and it is attached to the mucous membrane by a more or less distinct pedicle.

The treatment of nasal catarrh heretofore has consisted in the application of nitrate of silver, and in the use of astringent injections, together with the employment of various snuffs containing mercurials, tannin, alum, zinc, lead, etc., all of which have signally failed to accomplish radical cures. The first indication evidently in all cases is to build up the patient's system, and, for this purpose, preparations of iron and quinine, with the use of cod-liver oil, combined with iodine in scrofulous cases, will generally suffice, toning up the system and aiding materially the local treatment. The first thing to be accomplished in the local treatment is, to clear out the nasal passages, anteriorly and posteriorly, in order to prepare the nasal mucous membrane for medication; and to this end, Thudicum's nasal douche, or the posterior nasal syringe, may be used with a warm saline solution, containing sixty grains of the chloride of sodium to the pint of water. This operation will have the effect of clearing the nasal cavities of the accumulations of crusts, and will leave the surface of the mucous membrane clear and free for the local applications. After the nasal mucous membrane has been thus prepared for the reception of medication, a solution of nitrate of silver may be applied thoroughly to the entire surface of the nasal cavity, which will have the effect of diminishing the thickening and congestion of the mucous membrane. This application is recommended to be followed by the propulsion of the vapor of iodine into the nasal passages anteriorly, by means of an instrument similar to that devised by Dr. Roosa, of this city. The instrument used by the writer is made of hard rubber, having a cavity filled with sponge which is medicated with the tincture of iodine. Upon one end of this hard-rubber apparatus is attached a nasal tube fitting into the nostril, while to the other extremity is attached a soft-rubber bulb with a flexible tube. By compressing the bulb, atmospheric air, or steam if desired, is forced through the hard-rubber apparatus containing the sponge saturated with iodine, and diffuses the vapor of iodine throughout the entire extent of

the nasal cavities, exerting a powerful alterative and curative effect upon the mucous membrane of the nasal cavities and Eustachian tubes ; and especially in cases of swelling and hypertrophic thickening of the mucous membrane covering the turbinated bones and septum. After a very few applications have been made, a very free flow of serum will be induced, and the sub-mucous infiltration will be much lessened. The sense of hearing, which is often impaired by the extension of the catarrhal inflammation to the Eustachian tubes, will often be restored by these applications, after the flow of serum has relieved the congestion and swelling of the mucous membrane. The sense of smell, which in chronic catarrh is often entirely obliterated, is also restored as the mucous membrane returns to its normal condition. These applications can be more or less prolonged as the cases are more or less advanced in character ; fifteen minutes, however, being considered by the writer a sufficient length of time, if the applications are properly made. The use of the nasal douche should precede each application. A snuff, composed of equal parts of finely-pulverized camphor and white powdered sugar, is also given to the patient, with instructions to use it *ad libitum ;* and patients are unanimous in their expressions of relief subsequent to its use. The preceding, together with the use of injections, and sprays of sulphate of zinc or copper, constitutes the writer's treatment for nasal catarrh in the acute and chronic forms, and it has proved equal to the cure of several very obstinate cases which had been considered incurable.

The following cases serve to illustrate the success of the plan of treatment recommended.

William C., fourteen years ; occupation, school. Duration of disease, three years. Previous treatment consisted in applications of various catarrh-snuffs, which had done no good. There were complete anosmia and partial deafness, owing to the lining membrane of the Eustachian tubes having become affected by the extension of the inflammation into them. Enlarged veins could be seen on the posterior

pharyngeal wall. Examination anteriorly with nasal speculum revealed a congested and swollen condition of the mucous membrane, with considerable infiltration. At the posterior part of the right nostril could be seen, projecting into the nasal cavity, a small mucoid polypus, which occluded the nasal passage considerably, preventing the free nasal respiration which should take place. Rhinoscopic examination revealed a very red and thickened appearance of the mucous membrane covering the turbinated bones, particularly the middle and lower ones, and also the septum. The secretion from the nasal passages was composed of mucus, and at times was muco-purulent in character. The patient had lost all power of distinguishing different odors, and his voice had acquired a strong nasal twang. He was obliged to keep the mouth open during respiration, owing to the partial occlusion of the nostrils by the hypertrophic thickening of the nasal mucous membrane, and the presence of the small polypus before alluded to. The treatment was commenced by a very thorough use of Thudicum's nasal douche, with a warm saline solution. This resulted in the detachment and expulsion of a large occumulation of crusts of inspissated mucus.

After this operation the mucous membrane of the nasal cavities was painted over with a solution of nitrate of silver in glycerine, sixty grains to the ounce. On the following day the nasal douche was again used, and the operation followed by the propulsion of the vapor of iodine by means of the instrument previously described. After this application the patient complained of a slight burning sensation, which soon passed away After the fourth application of this character, there was a very free flow of serum induced, which relieved the patient greatly, diminishing the swelling of the mucous membrane. The patient was given a snuff, composed of equal parts of pulverized camphor and powdered sugar, to be used by him *ad libitum;* and three successive boxes were given him, as he seemed to be so relieved by its use. The small mucoid polypus was

twisted off, and the attachment of the mucous membrane cauterized with the nitrate of silver. Upon microscopical examination this tumor was found to consist principally of enlarged glands, the remainder being mucous tissue. The above-mentioned treatment was persisted in for three months, the use of the nasal douche preceding each application of the iodine. At the end of that time the swelling of the mucous membrane, together with the discharge from the nasal passages, had entirely disappeared. Nasal respiration was re-established, the partially-obliterated sense of hearing reappeared, and the sense of smell at the termination of treatment was normally acute.

Elizabeth G., eleven years of age; duration of disease, eight months. Rhinoscopic examination revealed congestion and swelling of the mucous membrane of turbinated bones and naso-pharyngeal cavity, but no apparent thickening. There was excessive secretion of mucus, and partial loss of smell. The nasal douche was used, and the nasal cavity painted over with the following:

R.	Iodini,	gr. vj.
	Potass. iodid.,	gr. xij.
	Glycerin.,	oz. ij. M.

This was followed by the propulsion of the vapor of iodine, applications being made every other day, and in a little less than three weeks the disease had yielded completely to treatment, and the patient was discharged. During the treatment of the above-mentioned case, the patient, being insufficiently nourished, was put upon a mixture of cod-liver oil and syrup of the iodide of iron. The camphorated snuff was also given her to use.

Another case, in a boy sixteen years old, was complicated with glandular enlargements at the vault of the pharynx, to which the writer's attention was drawn from the patient's complaint of the constant dropping of mucus from "the roof of his mouth," as he expressed it. Upon rhinoscopic examination there was seen to be, in the naso-pharyngeal cavity, lying between the orifices of the Eustachian tubes,

an irregular chain of highly-congested glands, whose free extremities depended from the vault of the pharynx. These vegetations were covered with a copious secretion of mucus, which kept dropping constantly into the back part of the throat, and were expectorated by the mouth. Upon removing the adherent clumps of mucus with a sponge, a few small drops of blood exuded from the fungoid mass, showing that it was very vascular, These growths encroached somewhat upon the orifices of the Eustachian tubes giving rise to a considerable deafness. As the growths were too small to be crushed, or torn off by forceps, as is recommended by Cohen, Meyer, and others, they were cauterized by means of nitrate of silver, and daily injections of sulphate of copper (ʒ ij. ad aquæ oz. j) were employed, which caused their destruction and disappearance. The patient was then treated in the usual way for his nasal catarrh, which soon disappeared, the principal difficulty residing in the glandular hypertrophy.

Many cases of simple acute catarrh have been treated at the outset by the simple propulsion of the vapor of iodine, and the administration of a full dose of some diffusive stimulant, such as muriate of ammonia, opium, hot punch, etc., at bed-time, with the result of abating the attack in two or three days.

According to the writer's experience, if cases can be seen at the outset, or before thickening of the mucous membrane has taken place, they can be easily cured, while cases of long standing invariably require protracted treatment for the accomplishment of a thorough cure.—*New York Medical Journal.*

On the disease of Carpenters. By PETER EADE, M.D., F.R.C.P., Physician to the Norfolk and Norwich Hospital.

(Read before the Medical Section at the Annual Meeting of the British Medical Association in Norwich, August, 1864.)

[redacted]resent communication will be a short one; but I [redacted]t it worthy of production on the present occa-

sion, because I believe it to describe an affection quite distinct in itself, though hitherto unnoticed by writers, or at all events, not separated by them from kindred or allied disorders.

It is well known that undue or too prolonged exertion of any part of the body is apt to be followed by an exhausted or more or less paralytic condition of the overworked part; and also that this precise condition may vary in every degree from simple weakness to a more or less complete loss of the function of the affected part. It is also familiar to us that the affects of such an exhausting or paralysing cause may be produced not alone at the special part itself, or even at the central-point of implantation of the nerves passing from it, but also, and still more, by reflected action at other points, either contagious to the affected centre or at the periphery of nerves afferent from these adjoining parts or their connections.

Carpenters, it is well known, in a certain class of their work, use their hands and arms pretty continuously; and not only so, but in a very monotonous way—as, *e. g.*, in planing an hand-sawing; so that the same set or sets of muscles are often constantly and continuously called into action. I have ascertained that, in an ordinary way, they do not suffer from their peculiar work—probably because it is commonly much varied; and I therefore conclude that special circumstances or conditions are necessary to induce such evil results.

R. N., aged 52, married, a carpenter, first came under observation in March, 1870. He had enjoyed excellent health until about five months before this, with the exception that, in November of the previous year, he had suffered for a short time, and without known cause, from slight weakness and tremors of the muscles of the face and tongue. These symptoms, however, quickly passed off, and he remained quite well until October 1869. At this time, he began to complain of pain and numbness of the fingers and hands on both sides, extending as high as the wrists; and, not long

after this, he began to be troubled with shortness of breath, made worse by any exertion ; and this was soon followed by a slight cough and expectoration, the latter once or twice tinged with blood. He also said that he felt generally weak, and was unsteady about the knees on standing or walking.

At the time of his admission to the hospital, the numbness and aching of the hands and the shortness of breath were his principal symptoms. But he still had some trifling cough and spitting ; and, though his body was well nourished, he was evidently weak in all his limbs, and had a fidgety nervous manner. The respiratory murmur was found to be weaker on the right than on the left side of the chest ; but no other abnormality of the lungs, and none of the heart, could be detected. There was no disease or disorder of any other viscus. I ascertained that he was a quiet steady living man, perfectly temperate, not a great smoker, and free from any suspicion either of venereal disease or of lead-poisoning. His temperature was not above normal ; and he had previously been very healthy and strong, and by no means of nervous temperament.

The only probable explanation of his symptoms appeared to be this. He was a carpenter in a small way of business, with a family dependent upon him, and of an anxious turn of mind. As such, he had been accustomed to work long and extra hours, to save the cost of hiring assistants, and in consequence had greatly fatigued himself in his various kinds of manual labour.

I shall not detain you with any lengthened history of this case, but will merely say that this patient has been under my observation from 1870 until the present time, a period of nearly four years. During this time, he has very slowly improved, and is now so much better that almost the only remaining symptom is shortness of breath ; and he has been able to resume his occupation so far as to do some of the lighter work of his trade.

Soon after this case came under my observation, another similar one, also in a carpenter, occurred to me ; and

still later, a third case, with almost identical symptoms, presented itself in the person of a labourer who had overworked his upper extremities by prolonged digging. Of all three, I may say shortly, that they all presented very similar and closely allied symptoms, one of the most prominent of these being the free secretion of a whitish mucus, apparently from the mouth, the throat, and the air-tubes, but without much cough, and without any distinct chest disease. Other symptoms have been, shortness of breath; vague pains and discomforts in and across the chest, either limited to this part or extending upwards to the neck and face and head; sensations of dorsal chilliness or tremor, but scarcely any distinct spinal tenderness; and in all a peculiar nervousness and fidgetiness of manner.

I would now add that since this paper was announced, a fourth case, evidently of the same class, has come under my care. This man, like the last, was not a carpenter, but had worked as a "navvy", in which capacity he had of late strained his arms severely—first in throwing earth into railway-waggons, and afterwards in barrowing heavy loads of soil all day—the effect of which at the time was to cause much numbness and aching weakness in and all along his arms.

It will be seen from this history that, of my four cases, only two were carpenters. The title, therefore, of this paper, is plainly not sufficiently comprehensive, seeing that other workers besides carpenters are liable to it. But, as my first and most typical case, and the one which is the foundation of this communication, occurred in a carpenter, and as the work in which carpenters are engaged is so especially arm-work, I have not thought it necessary at the last moment to alter it, believing that this term not inaptly expresses the nature of the disorder from which they have all suffered. No doubt its exact nature is irritation, followed by exhaustion, of those portions of the spinal cord from which the nerves of the brachial plexus arise; in other words, it is an erethism of this plexus and of its related cer-

vical ganglia, with reflex disturbed action of other parts whose nerves are in connection with these cervico-dorsal nerves.

I believe that it has been noticed that sawyers working long hours in sawpits are liable to get a weak or semiparalysed condition of the muscles of the upper extremities. It is also well known that cramp and a species of palsy are apt to follow continued over-exertion of the limbs in several classes of workers, as in the writers' cramp of clerks, the thumb and forefingers of writers, and the arm-cramp of smiths (described by Romberg, Russell Reynolds, and others); but I think that, although these affections are more or less allied in their nature, there is an essential difference between them and the one I am describing, in that in writers' cramp the muscles of the arm are the parts chifly affected, whereas in these cases, beyond the trifling initial weakness and pain of the hands and arms, the effects are produced in parts distinct from the limbs, and are such as show that the ganglionic system is the one specially affected.

An analysis of the symptoms shows that they extend over a considerable distance—indeed, from the head above, through the cervical and dorsal regions, as low as the level of the epigastrium ; and that, though the greatest amount of effect is produced at the level of the upper part of the thorax, yet that the discomforts elsewhere felt are by no means insignificant. In some degree, the peculiar nervousness and sensitive condition approximate to what is seen after concussion of the spine, and are not very unlike what I have witnessed as following a railway accident.

It is, I think, probable that the effect of such work as carpenters and navvies sometimes perform may be somewhat akin in its jar and concussion to that of a blow or injury to the spine ; and that, although in the one caae the shock is less in amount and more prolonged, instead of, as in the other, sudden and violent, yet the eventual effect may be the same in kind in the two cases ; viz., the produc-

tion of a condition of weakness, hyperæsthesia, and loss of functional power. Perhaps in some slight degree, also, this affection may be likened to that produced in women by excessive use of the foot sewing-machine, in whom it is well known that irritability of the spine and pelvic irritation are frequently set up by its employment.

A curious fact has been announced by Dr. B. W. Richardson; namely, that a subclavian murmur is almost universally present in carpenters and in men who work as they do. In one of the patients above alluded to, it was very distinct; and it would probably be due to the same class of cause as the affection I am describing.

As to treatment, I have tried very various forms of remedies—tonics, bromides, ice to the spine, faradic and galvanic electricity; but nothing except prolonged rest has appeared to be of any material value.—*British Medical Journal.*

Rigor Mortis in an Infant at Birth. By W. C. GRICG, M.D. Assistant Obstetric Physician to the Westminster Hospithal.

The following case appears to me to be not without interest in relation to the etiology of rigor mortis.

On the evening of August 16th, I was sent for by one of the mid-wives of Queen Charlott's Lying-in Hospital to see a woman (a multipara) with placenta prævia. Labour began at 6 P.M. with a discharge, which continued with each pain. On the arrival of the midwife, the os was found about the size of a sixpense, but the presentation could not be distinctly determined. At 9.30, severe flooding set in, which lasted about half an hour. The os was now dilated to the size of a half-crown; across the anterior portion, a soft thick substance was felt. When I reached the woman, a little before eleven, the hæmorrhage had nearly ceased; the os was fully dilated, and the mass was clearly a portion of the placenta. As the membranes were intact, they were

ruptured; and in a few minutes the child was born. The after-birth came easily away five minutes afterwards, and with it some clots, so firm that they felt like pieces of flesh, requiring some force to break them down. There was slight *post partum* hæmorrhage. The child was quite livid; the arms were folded on the chest, and the thighs flexed on the abdomen. The jaw was firmly fixed; so was the head and the extremities. The abdominal walls were flaccid, but the back was partially set. It was with the greatest difficulty I could get my finger into the mouth; and in order to extend the extremities, the body of the child had to be firmly held.

The woman stated she received a severe fright the previous evening, but believed she was at her full time. The movements of the fœtus were so troublesome that she slept little that night. It was last noticed at about 4 P.M., two hours before labour set in. The hæmorrhage was nothing to speak of until about 9.30, when it became very severe, but only lasted about half an hour. She was confined shortly after 11 P.M. When seen, she did not present the appearance of having lost much blood. No ergot had been given. I think it may be fairly presumed that death of the fœtus took place during the excessive loss of blood—i. e., about an hour and a half before its birth. It has been my misfortune to have been present at the birth of many still-born children, whose deaths have varied from minutes to days before birth, but I have never before seen a fœtus with rigor mortis at birth. It would be interesting to know if any other practitioners have met with a like case, and if so, what were the circumstances attending each case. Here the woman had received, on the previous evening, a severe shock; there were partial placenta prævia, severe flooding only for about thirty minutes, delivery in an hour afterwards, and the blood coagulating rapidly and very firmly.—*British Medical Journal.*

Coal Gas Poisoning.

Although cases of poisoning have from time to time occurred such as those related in the pamphlet before us, very few of them have been carefully recorded. It is somewhat singular that the July number of the *Edinburgh Medical Journal* for this year, and the first number for July of the *Berliner Klinische Wochenschrift* should simultaneously contain articles on this subject. The latter will be found by English readers in a condensed form in the *London Medical Record* for August 5th, (No. 83, vol. 2). the former is reprinted with some additions, forming the pamphlet now before us. Dr. Taylor first relates the case of a Canadian, between 50 and 60, who was found livid and insensible in a bedroom in one of the Edinburgh hotels. It appeared that *he had blown out the gas* instead of turning it off, and had thus inspired a mixture of gas and air, which amounted to some three per cent. only, or about 1 in 33½. Efforts to resuscitate him were so far successful that he survived nearly two days. Unfortunately no *post mortem* examination was allowed. The pamphlet is not confined to a very careful record of the symptoms in this case, but contains accounts of several others, and more particularly of the suffocation of a whole family (a foundry labourer, his wife, who was *enceinte*, a girl aged two, and a boy aged 8 years), at Dundee. Besides this there is an abstract of the Strasburg case, in which six persons—father, mother, two sons, a daughter and a servant, were exposed for nearly forty hours to the deleterious effects of a gas containing unusual quantities of carbonic oxide. Of these, four were found dead, and, after 19 hours, one only, the mother, survived. The original account of these cases is in French (Relation Médicale des Asphyxies Occasionées à Strasbourg par le Gaz de l'éclairage, par G. Tourdes, Professeur de Médicine Legale à le Faculte de Strasbourg), and is little known in this country. Dr. Taylor has, therefore, done well in giving an abstract of its chief points of interest. I

appears that the woman who recovered was insensible forty hours. She had hemiplegia on the right side. Her recovery was very tedious. The principal *post mortem* appearances in the four fatal cases were as follows :—*Brain* and its membranes highly congested. Intense redness of surface. *Air passages* also strongly injected, filled with whitish, viscid, frothy foam, with sanguineous streaks. *Lungs*: in all the cases intensely red throughout their parenchyma. *Heart*: blood clotted, especially in right auricle. *Liver*: blood very red. *Bladder*: distended, with an enormous quantity of limpid urine. The morbid phenomena are thus classified: 1st, insidious invasion. 2nd, headache and vertigo. 3rd, nausea and vomiting. 4th, absolute loss of consciousness (and anæsthesia]. 5th, general debility, prostration of strength, partial paralysis, and convulsions, 6th, phenomena of asphyxia appearing slowly, but complete and predominant during last moments of life. Dr. Taylor's recommendation to turn off the gass at the main, or at all events, at the meter during all the hours of daylight, scarcely strikes us as practical or practicable in large cities. His advice to avoid all flexible fittings, to discontinue the use of gas in bedrooms, and to take care of due ventilation wherever it is burnt, is more easily carried out. It strikes us that the thorough purification of coal-gas is of more moment, for carbonic oxide in these cases, and sulphuretted hydrogen in some others appear to us to have been the chief causes of the fatal results. But the discovery of some sufficiently cheap and brilliant substitute for coal-gas is the real desideratum, and this we fully believe we shall some day obtain by some modification of the present electric light. As most of our manuals of medical jurisprudence and toxicology make little or no mention of the subject, we strongly advise students who intend going in for honours in this subject to procure Dr. Taylor's little pamphlet.—*Students' Journal.*

Dr. Sée on Belladonna and Nicotine.

Dr. Sée, in a lecture at the Hospital de la Charité, says that atropine is the most complete antagonist of muscarine, that cardiac medicine spoken of by O. Schmiedeberg in 1869. Six or seven years ago, Meuriot, one of Dr. Sée's pupils, noticed that atropine caused acceleration of the movement of the heart. The ganglia which terminate the pneumogastric nerve are paralysed. If muscarine and atropine are successively employed, we notice that the heart, arrested by the effect of the muscarine, begins to palpitate with atropine; but muscarine cannot arrest the palpitation of an atropised heart. The paralysing action of atropine on the pneumogastric is, then, very energetic. Atropia has besides the power of exerting the blood-vessels and making them contract rhythmically. To this commencing contraction of the vessels let us add the most remarkable effect of this drug, the dilatation of the pupil, which takes place from contraction of the dilating muscle, excited by the sympathetic. There is also paralysis of the sphincters, of the pharynx and larynx, and of the voluntary muscles, with impaired sensibility.

Nicotine is the neutral principle of tobacco, and is a vascular poison above all, but also a cardiac poison. If a small dose of nicotine be injected into an animal, we notice first a retardation of the heart's action, and next, augmented pressure in the vessels. If the animal be opened, the vessels are found contracted. There is, in a word, enlargement of the vaso-motor nerves, and of the vessels, and also tetanic rigidity. When there is a strong dose of nicotine, we notice the inverse; the heart's action becomes accelerated because, then nicotine acts like atropine, by paralysing some part of the suspending system. Ordinary smokers have palpitations, or slow pulse sometimes, 48 pulses per minute, with intermittences; extravagant smokers speak of palpitations with rapid pulse, 130, 140, 150 pulsations per minute.

Roux, an old professor of the Faculté de Médecine, considered that smokers were "gredins;" but that was forty years ago. Muscarine, when injected, will lower the pulsation caused by nicotine.—*The Doctor.*

Death from Idiopathic Rupture of Spleen. By EDWARD ATKINSON ESQ., Surgeon to the Leeds General Infirmary.

A lady, aged 35, of middle height, stout, married only five months, highly hysterical, had never been quite well since her marriage. She had menstruated regularly, but had irritable stomach, with frequent attacks of vomiting, and sometimes suffered considerable pain in the gastric region. She had been under the treatment of my friend Dr. Young for four or five weeks for these symptoms, which had been alleviated, and she was considered to be convalescent. *She never had enteric fever.* On the evening of August 5th, 1873, she was suddenly taken ill after eating herring, and was attended by Dr. Frobisher. Violent retching continued from 9 P.M. till noon next day, and was followed, after the first hour or two of sickness, by acute pain in the left side, which rapidly spread over the whole abdomen. At noon she sank into a state of collapse. When I saw her at 4 P.M. with Dr. Frobisher, she presented the appearance of a person in the last stage of Asiatic cholera—cold, restless, pallid, blue lips, pulseless at the wrist, whispering voice, clammy sweat, but no diarrhœa. Was it gall-stone, intussusception, internal strangulation, or rupture of an aneurism? One thing was evident—that death was inevitable. She died at 5 o'clock, twenty hours from the commencement. With great difficulty, a necropsy was obtained, and was made two days after death by myself in conjunction with Drs. Young and Frobisher. The body was very fat. There were two inches of fat in the parietes, besides a thick subperitoneal layer. The abdominal viscera were bloodless. A large clot, several pounds in weight, overlapped the lower edge of the great omentum and filled the left side of the abdomen; beside which, there was a large quantity of dark fluid blood. There were no adhesions, or signs of effused lymph, or of peritoneal inflammation anywhere. On tracing up the blood to its source, it was found to issue from a rent in the gastrosplenic omentum

which was distended into a large pouch. On enlarging the opening, more clot and fluid blood escaped, and then the spleen was seen, shrunken, pale, flabby, and its lower portion disintegrated and in a state of muddy pulp. The stomach and duodenum contained no ulcer or other unhealthy appearance. The liver was pale, flabby, and very friable. The kidneys were healthy. The gall-bladder and duct were devoid of calculi. The thorax was not opened. The only similar case of which I ever heard, or of which I have been able to find record, is one which my friend Dr. Deville of Harrogate communicated to the Branch meeting at Scarborough last year.—*British Medical Journal.*

Slight Injury to Leg; Sudden Death; Thrombi in Right Ventricle from Popliteal Vein. By A. B. SHEPHERD M. A., M B., Assistant-Physician to St. Mary's Hospital, etc.

The following case presents many points of similarity to those lately published in THE LANCET by Surgeon Thomas Browne, M. D. June 27th, 1874, p. 901), and Mr. Geo. G. Gascoyen (Aug. 8th, p. 189). For the life-history I am indebted to Dr. Stewart, of Southwick-street; for the post-mortem notes I am entirely responsible.

R. G.——, aged forty-nine, a healthy, spare, though largely-made man, of active and temperate habits, slipped, on June 1st, 1874, through the rounds of a ladder, and abraded his left shin. Under ordinary treatment the wounds so caused almost entirely healed. On the twenty-first day after the accident, while going up stairs, he fainted and fell, without suffering any apparent injury. Three days later he had a rigor, followed by well-marked signs of simple pleurisy on the right side, the diagnosis being confirmed by Dr. Walshe, who saw him whilst suffering from the attack. On the thirtieth day after the accident, he fell down while dressing, and died.

The autopsy was made forty-eight hours after death. There was most extensive decomposition of the head, neck, and upper extremities, the superficial veins being much discoloured. There was no great decomposition of the body externally below the level of the diaphragm. All the organs were healthy, but very much decomposed. The blood throughout the body, with the exceptions noticed below, was fluid. Coiled up in the apex of the right ventricle were three moulded clots, one showing most beautifully the impression of vein-valves. Two of these clots exceeded 7½ in. in length each. Only one very small clot, soft and recent, was found in a branch of the pulmonary artery. The subclavian, jugular, iliac, and femoral veins, and the cava were carefully examined. The left internal saphena was removed from two inches below the original wound to its entrance into the femoral, and the latter itself to below the popliteal, vein. On slitting up the saphena, the coats of the vein below the region of the wound were found to be perfectly normal, semi-transparent, and drying rapidly on exposure to the air. Nearer the wound its coats cut more rottenly, and where the smaller veins from the wound entered it, it was dilated. From this point upwards, its internal coat, as well as that of the veins from the wound, and of those dipping down to the deeper vessels, was intensely red, more than bloodstained, swollen, and moist, even after long exposure to the air. The same was the case with the femoral and popliteal veins; the coats of the latter were greatly swollen, and injected a dark, black-currant colour: and in the popliteal vein itself lay the debris of a clot, non-adherent to the vessel-wall, and extending for more than three inches from above to below a pair of valves, the same, in all probability, which had left their impression on the clot in the right ventricle.

The heart-clots, together with the veins engaged in the morbid process, are preserved in the Museum of St. Mary's Hospital.

Remarks.—It is impossible to add much to the simple in-

terest of this case. The very slight injury to the leg ; the consequent thrombosis occurring in the vessels running from the wound, unacompanied by obstruction, œdema, or pain in the limb ; the dislodgment of the clots and of portions of them ; the fainting-fit, due either to pulmonary embolism, of which, however, no sign was found, or to the presence only in the ventricle of a clot or clots ; the pleurisy, also probably embolic ; the sudden death, due to the thrombi in the heart; such was the succession of events. The first seat of the *original* thrombus must remain a matter of speculation. One of the clots removed from the heart shows, by its concentrically deposited layers at one end, that it is a *prolonged* thrombus, much increased in size since it commenced to travel, and the marked signs of morbid action throughout the course of the saphena, popliteal, and femoral veins, make the original starting-point more doubtful still. Most noteworthy is the agreement of the valve-impressed thrombus in the heart with the position of the less firm clot found in the vessel. *The Lancet.*

Two Cases of Diastasis in Adolescents. By CLEMENT DUKES, M.B., B.S. Lond., Medical Officer to Rugby School.

Case 1.—Mr. X., aged 18, on December 10th 1872, while playing in the close at the school, was pushed on the outer side of his right leg while his legs were extended laterally from the median line, when he suddenly felt acute pain above the knee, and fell down ; and the limb was powerless.

On examination, the knee-joint was not swollen. No distortion was perceptible to the eye. The leg lay powerless on the bed. The foot was neither twisted nor everted. The limb was slightly shortened on measurement. On taking hold of the limb, no crepitus could be elicited, nor any movement, though pain was felt, whichever way it was moved. On slightly flexing the leg, a rapid movement in the limb was felt, like two smooth surfaces passing quickly

one over the other. The situation of this rub was found by a slight depression being felt about two inches above the knee; and the lower bone could be felt slightly prominent posteriorly on the upper part of the popliteal space, being rotated a little backwards by the gastrocnemius. The diagnosis was made of diastasis, or separation of the condyles from the shaft of the femur. This epiphysis is the last to unite—viz., at twenty years.

Treatment.—The difficulty was to keep the surfaces of the bone accurately together, owing to their slippery nature:

1. A suspending thigh-splint with pulleys was first tried, but without success.

2. The straight "long outside" splint, with perineal extenders, was then applied with better success, but not complete.

3. To the "long outside" was added a small straight back-splint with a pad sewn on it, to keep the lower end from slipping backwards. The perineal band was moved, and extension kept up by a weight passing over a pulley at foot of bed.

By this means, a firm union was obtained at the end of six weeks: the limb was of full length; and he was allowed to get up.

On examining the limb, no one could have told that there had been a disunion; for there was not the slightest thickening at the seat of injury; no provisional callus being thrown out as in fracture, union being effected in the cartilage. Fearing lest this should not be strong enough at the end of six weeks to support a tall strongly-built youth, I made a leather case, which he wore for a week or two.

Case 11. Mr. T., aged 16. on July 4th, 1874, for three months had had a little pain at the inner side of the arm at the elbow, when exercising in the gymnasium. This culminated in an injury there, through a fall from the horizontal bar while performing the exercise called "back away". account is, that he kept hold of the bar with his hands

too long, so that in the turn, instead of alighting on his feet as usual, he fell on "all fours", with his arms extended; but the force was sufficient to make the left arm suddenly flex outwards. He felt something crack, and cause him pain at the elbow and a feeling of faintness.

On inspection, the arm was held stiff, neither flexed nor extended. There was a swelling over the internal condyle of the humerus, like a swelled bursa, making the condyle appear very prominent. Immediately below this, instead of the usual convex contour on the inner as well as the outer side of the forearm, there was a considerable hollow or concave outline, with slight extra thickness of the muscles of the forearm antero-posteriorly. Owing to this the outer contour of the forearm seemed increased in convexity, but was in reality normal when the two arms were compared; thus dispelling the idea of a dislocation of the radius and ulna outwards, which it resembled at first, from the prominent inner condyle with the depression below.

On manipulation, flexion and extension were perfect and almost painless; also rotation internally and externally; but, when the palm of the left hand was placed over the inner condyle, and the arm moved, great pain was elicited. On manipulating over the inner condyle more minutely, a morsel of bone could be felt, freely movable when laid hold of with the fingers, causing no crepitus, but moving easily and smoothly, and distinctly external to the joint; being a separation of the internal epicondyle from the humerus, caused by muscular action through the forcible flexion of the forearm on the arm. There was no injury of the ulnar nerve. The inner condyle of the humerus unites at the age of eighteen.

Treatment.—A rectangular splint was applied, and a figure-of-eight bandage and a pad on the elbow. Position and union were effected well.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1874.

THE MONTREAL GENERAL HOSPITAL AND ITS SMALL POX WARDS.

We have on a former occasion called attention to the danger which arises to the inmates of General Hospitals by having an attached building for the treatment of small-pox. With regard to our own hospital we have reported on several occasions the spread of small-pox into the general wards and we have repeatedly advised the governing body of our hospital to close their small-pox wards and refuse to admit patients suffering from that disease Whenever we have suggested this desirable change, we have been met by the statement that it is contrary to the Act or Statute regulating General Hospitals, and therefore until an amendment to that Statute is effected the small-pox wards of the Montreal General Hospital must remain where they are. We would call upon our Local Parliament at its next Session to consider the advisability of amending the first clause of the Act bearing on this subject. It is to be found in the Statutes of Canada for the year 1861, being the 24, Victoria Cap 24, and assented to the 18th May 1861, it reads as follows:—

"No warrant shall hereafter issue for the payment of any "sum of money granted by the Legislature to any hospital, "unless, nor until a certificate signed by a medical officer "of such hospital, to the effect that there is in such hospi-"tal a distinct and separate ward set apart for the exclusive "accommodation of patients afflicted with small-pox, has "been filed with the clerk of the Executive Council."

We will not refer to the time when this clause was enacted, but merely observe that if the legislators of that day desired

by the introduction of such a clause, to prevent the spread of small-pox, that the experiment has been tried and has signally failed; the disease is not thereby prevented from spreading among the people at large, nor is the isolation sufficient, at least in the case of the Montreal General Hospital, to prevent its spreading into the general wards. No person can speak more positively on this subject than the writer. He is one of the attending medical staff of the Montreal General Hospital and since the year 1867 has performed his duty during the first winter quarter, that is, during the months of November, December and January up to the year 1870 when a change took place and his months of attendance have been since that period October, November and December in each year. During his attendance he can call to mind the occurrence of small-pox in patients under his charge suffering from some minor complaints and in many instances the sufferers have paid the forfeit of their lives. It will thus be observed that the usefulness of a noble charity is to a certain extent marred, a gross wrong done to those seeking its benefits, the attending surgeons and physicians seriously interfered with in their work of philanthrophy and the spread of a highly contagious disease permitted to go on unchecked.

In a recent visit abroad, we ascertained the practice followed in other countries. In Scotland we found that small-pox when it occurs is not admitted into any general infirmary. A separate and distinct building, apart and entirely isolated, is allotted to such a class of disease. In the Glasgow Infirmary what was once used as a Fever Hospital is at present, or at the time we visited it in August last, devoted exclusively to surgical cases. We were informed by the attending surgeon that a separate and distinct building in another quarter of the city is devoted to the exclusive use of small-pox and other highly contagious maladies. The same may be said of Edinburgh and London. In the latter city there is a separate and distinct small-pox hospital; we believe there are eight, or rather that eight separate buildings were used

exclusively for small-pox during the recent epidemic of 1870 and 71. What is the result of such precautionary measures? We find that during the first three months of the epidemic of 1870 and 71, London suffered a mortality from small-pox alone of over three thousand persons. By persistent efforts at isolation, by vaccination, and the strict enforcement of sanitary regulations there is not at the present day a single case of small-pox reported as occurring in the Metropolis, nor has there been a single death from small-pox in London for several weeks past. This is a surprising fact when it is considered that London possesses constantly a large rolling population of strangers who hail from all countries in the world, whose residence is brief, who come and go and their place is filled by others as rapidly as they leave.

In the name of common sense then, why should we in Canada, and in this large city permit a state of things to exist amongst us which should bring a blush of shame to any civilized community. It would be well for our Local Legislature to consider and deal with this subject. By a verbal alteration in the clause above referred to the governing bodies of general Hospitals would not be forced to keep attached to their institutions, wards for the "exclusive accommodation of patients afflicted with small pox," and in our own city we should be glad to see the small pox wards of both our general hospitals done away with.

We have heard much about a fifty thousand dollar grant munificently made by our city corporation, but there the thing ends. It does appear that the insanity of folly has fallen on our civic authorities, admitting the want of a small pox hospital, they voted $50,000. Then, for fear that some imaginary citizen should make a fortune out of this grant they determine to divide the amount so as to give the city of Montreal two sectarian institutions for the treatment of small pox. This not proving acceptable to the citizens, in their wisdom, the city corporation has decided to leave us without any hospital for the treatment of small pox. We think that in the present emergency the Government might

order the Corporation of our city to provide the necessary accommodation within a stated time, failing which, it should be done at its cost and charges. It is only by some prompt action of this nature that our Corporation will be roused to a sense of its duty.

SANITARY AUTHORITY.

In a recent speech at Manchester the British Premier, Mr. Disreali, is reported to have said "I think public attention should be concentrated on sanitary legislation. I cannot impress upon you too strongly my conviction of the importance of the Legislature and Society uniting together in favour of those important results. After all, the first consideration of a minister should be the Health of the people." Surely, if this applies in England, how much more in Canada. In England for many years past much extended and thoughtful legislation has been inaugurated bearing upon the enforcement of sanitary regulations, whilst here we yet await the laying of the very foundation upon which to rest any legal enactments to provide for the Sanitary Government of the country. Do we Canadians really and truly appreciate the great, the overwhelming, importance of this subject? We find the head of the British Government openly saying with all the emphasis of which he is capable that public attention should be *concentrated* on sanitary legislation. We should be only too glad to hear such words coming from the lips of some leading member of our present Executive at Ottawa. Nothing less than this should satisfy the Canadian public, they should not rest content simply with insisting that sanitary matters should receive a certain share of attention at the next session of our Parliament, but by *concentrating* their attention upon these matters and constantly keeping them agitated through the press and by every other available means, they would ultimately succeed in forcing measures relating to the public health into that prominence which they unques-

tionably deserve. Let us take as an example our own unfortunate city, which, we are sorry to have to confess, has been branded by the daily press, as the "most unhealthy city in the world." With such a climate as we enjoy, with such great natural advantages as regards site, water-supply, &c., as we possess, is it not a crying shame that such a disgraceful stigma should be allowed to go uncontradicted? And, to our disgrace be it said, it cannot be contradicted. For, according to the report of the Health officers received for the month of August, it appears that there were 346 deaths out of a total of 785, (nearly one half) from Zymotic diseases—the most prominent being small-pox, scarlatina, typhoid fever and whooping cough. Now, what means are being taken to put a stop to this outrageous and inexcusable mortality from preventible causes? Let us say at once *none*. We boast a Board of Health, salaried Health officers, and paid Health constables—but of what earthly use are all these when we are plainly told by them that they receive no information concerning the commencement, rise and spread of infectious diseases, and that they have no power to inspect premises, order removals, make improvements, or otherwise interfere to preserve the health of any place or district. The sooner we distinctly understand that there is *no* legal sanitary *authority* in our midst the better, for the more we dwell upon this idea, the more we will be impressed with the importance of concentrating our energies towards establishing such authority for the benefit of the whole community. We learn that one of our city advocates, has in course of preparation a code of sanitary legislation for the city which it is proposed to submit to the City Council, to be by them sanctioned and then made law by Parliament. Of course to prepare such a digest must take some time but we heard of this subject having been submitted to the city attorney for his opinion some months ago, and we would protest against any—the least—unnecessary delay in laying this report before the Council, and we do trust that, in the interests of humanity, the Health Com-

mittee will see to it that the proposed by-laws are at once brought forward for public discussion.

SMALL POX

With the advance of our cold season the disease small-pox appears to have taken fresh root, and is breaking out in all quarters of the city. This increase in the number of cases is due to several causes, the principal amongst which is our own neglect of known sanitary laws, and we might add the reckless, criminal, and trifling incompetence of our civic authorities, in not providing the necessary means for isolating the disease by the establishment of a proper small-pox hospital.

Quite recently a patient left the small-pox wards of the Montreal General Hospital and was taken to one of the charitable homes of this city. We have not heard that the infection has spread in the institution alluded to, but we should not be surprised if such an event were to follow. It may be asked why? Simply because there is no means in our hospital whereby a patient who has recovered from small-pox can be so isolated for a time, and cleansed, as to insure the public against infection. There are no intermediate wards no convalescent wards. The patient who has recovered from small-pox and is fit to be discharged from hospital is sent out directly from the room or ward in which he has gone through his illness. His clothes are brought to him and he has to dress in his ward or in some contiguous room, and he leaves the building carrying with him the germs of this loathsome disease in his clothes, it may be in his breath. This is no exaggerated picture, it is a fact and recent events in the breaking out of the disease in families who suffered no apparent direct exposure attest the fact. We will mention a few other sources, from which the disease spreads. A week or two since a brother practitioner entered one of the many public conveyances, to be found in this city, he had scarcely taken his seat before he recognised in

one of the passengers a respectably dressed woman the mother of a large family three of whom were lying dangerously ill at her house with small-pox, she came fresh from this house and entered a public conveyance carrying with her we do not doubt the germs of the disease in her clothes to be spread about and dropt in every quarter. Not long since another medical gentleman was called to a case of small pox in a child of a highly respectable citizen. No known exposure could be traced by the parents. Our professional friend, however, ascertained that this little girl went to a school in the neighborhood where there were a large number of children about her own age. One of these children came from a house in which several cases of small-pox existed, and, although she did not suffer from the disease, yet she carried the disease in her clothes and thirteen of her little playmates were struck down by small-pox while she remained exempt. We could mention a number of cases of a similar nature if it were necessary, all pointing to the fact of direct communication as the origin of the attack.

Are the citizens of Montreal sincere in their desire to stamp out small-pox? if so, it can only be done by perfect and determined isolation and general vaccination. Vaccination is not in itself an absolute preventive, but where it is strictly enforced and rigorously carried out the disease will, if it does attack the person so vaccinated, appear in a milder form. Isolation will stamp out the disease to such an extent that no single case will occur. If by way of allegory we suppose that persons were in the habit of going about the city with lighted torches so constructed that they left behind them a train of sparks and that in consequence large and destructive fires constantly occurred. What a frenzy of excitement would be produced, Mayors, Aldermen, Recorders, and all the lesser officials of state would be on the alert. These insane persons would be regarded as a public nuisance and they would be sumarily ordered to quench their fire brands or suffer the penalty

that the law prescribes. Is property of greater consequence than human life?

Would it not be better to provide in the present emergency a public hospital to which all cases of small-pox should be sent, but if persons elect to keep their friends at home they should do so with the known alternative of public isolation. Provide for persons afflicted with this horrible disease a fit and proper place where rich and poor alike can be accommodated with all the care or luxury needed or that can be procured, but if they decide on remaining in their own homes let the fact be intimated by a placard placed on the house, under police authority, simply the word Small-Pox in large and legible letters so that those who run may read, and thus give warning to the whole community that such a house is infected with the plague. If this is done and perfectly and absolutely carried out so that no unnecessary communication shall be held with such a house, then we will guarantee that within six months from this date probably within three there will not be left a single case of small-pox to record as occurring in the city of Montreal.

A small-pox Hospital is first to be provided, the City Council have proved themselves silly idlers, it would be well for the citizens to buy a few bags of marbles or spinning tops or any other toy of childish amusement for the foolish incompetents of the City Hall to wile away their time, but as to building a City Hospital for small-pox, the thing is absolutely beyond their ken. If a small-pox hospital is to be built or suitable premises secured to act as a temporary hospital, it will have to be done by the citizens themselves. If this is undertaken at all, it should be done without further delay. A spirit of earnestness and self preservation should guide those concerned in carrying out this work. Valuable lives have been already sacrificed, and others will follow unless some sensible honest and immediate action is taken in the premises.

THE TRAINING SCHOOL FOR NURSES AT ST. CATHARINES, ONT.

About one year ago a young lady entered into an agreement with Dr. Mack to go to England and to return in the spring with a sufficient number of trained nurses and of others who were willing to serve as probationers, to establish in St. Catharines one of those institutions now growing up in all centres of population in Europe and America.

In the month of April, Miss Money, the young lady referred to, returned with four nurses whom she had carefully selected from applicants during the winter. Dr. Mack having also during her absence fitted up and rented a proper abode for them with funds collected from visitors at Springbank and from the ladies of the town, and upon the 1st May the whole undertaking commenced active operations with a staff of five nurses, one being a Canadian, and Miss Money as superintendent, under the designation of "The Gasparin Training School and Nurses' House."

A small hospital of about twenty beds was placed in the hands of the sister superintendent, and the work of training commenced. At Springbank, also, a large hotel sanitorium and bathing house was established. Two of the nurses went on duty every second week, and thus two valuable elements of training were combined, viz., the care of the affluent and the care of the poor, home nursing and hospital nursing, while two of the number were left ready for serving as monthly nurses if required. The cottage hospital being wholly inadequate to its requirements as a "General and Marine Hospital," the Dominion Government, by the strenuous exertions of Mr. Norris, the Member for this County, were induced to make a small grant in aid of the Marine department, and this, with other contributions enabled the Trustees to erect a commodious addition, admitting of about 40 beds in all, and now under the present able management the Charity bids fair to become a perfect "bijou" in the hospital way.

The plan of management of the Nurses' Home is as

follows: each nurse binds herself to serve three years, the first six months free, and after that to receive ten dollars per month and two suits of uniform annually, and comfortable board and lodging at the "Home" when unemployed. The expenses so far have been very small, and have been met by private contribution, two gentlemen, Mr. Fred. Merritt of St. Catharines, and Mr. P. P. Pratt of Buffalo, making the handsome donation of $100 each. Miss Money gives her services entirely free, and having purchased the property where the "Home" now is out of her private means, she gives it up for the purpose at a small rent. This lady was trained by the Countess Gasparin, in honour of whom she has given the name to the Institution. and she is well competent to instruct, having had a large experience during the Franco-Prussian war. Instructions in the principles of Physiology and in General Anatomy will be also given by the Medical Attendants at the Hospital during the winter months.

The monthly and other nurses are in constant requisition, and the want is felt of more nurses, but not of employment for them. It is barely self sustaining now, and by careful management and a little outside assistance there seems to be no doubt that this, the first enterprise of the kind in Canada, will ultimately be crowned with success.

No distinction of religious sect is recognized, the women are only required to be Christian in character and conduct and to comply rigidly with the rules and regulations both of the Hospital and of the "Home."

The canal at present being cut, and the navigation of the old canal give a large number of serious surgical cases, and afford ample scope for the exercise of those desirous to learn.—*Commnnicated.*

The Late Dr. Anstie.—A committee has been formed, which comprises many of the most eminent men in the medical profession, for the purpose of taking steps to raise a fund to be applied in perpetuation of the memory of the late Dr. Anstie. His former pupils will, there is no doubt, assist the movement to the utmost, and we trust that it will be as well supported generally as was the "Web Fund," the total of which amounted to £2,074 1s. 6d. It is reported that Dr. Lauder Brunton will succeed Dr. Anstie as Editor of the *Practitioner.—Students' Journal.*

DR. GODFREY'S CASE OF PLASTIC OPERATION.

(See page 225 "Canada Medical and Surgical Journal" for December, 1874.)

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Extensive Destruction of the Soft Parts near the Angle of the Mouth, from Sloughing after Fever. Plastic Operation; Recovery. By ROBERT T. GODFREY, M.D., Professor of Surgery, University of Bishop's College, Lennoxville, Attending Surgeon, Montreal General Hospital. (With an illustration).

The following case was admitted into the Montreal General Hospital on the 13th July, 1874, and as it illustrates the beneficial results of plastic surgery, I deem it of sufficient interest to lay before your readers. The history as given by the patient himself is as follows:

William Bouchet, æt. 19, a French Canadian: a strong, well proportioned young man,—some two years ago suffered from an attack of "Typhoid Fever." He was ill for several weeks. In the course of his illness, and towards the close of the fever, his face became inflamed, he suffered much pain of a burning character, soon an ulcerated spot occurred, and the whole of the cheek separated and fell out; subsequently his teeth loosened, both in the upper and lower jaw, and were taken away by his doctor, together with several pieces of bone; he made a very slow recovery. Upon examination I ascertained that nearly the whole cheek on the left side had sloughed. The buccal cavity was completely absent. The molar teeth in the upper and lower jaw were gone, as well as a large portion of the alveolar processes. The integument

was adherent to the bones of the face, and there existed a large opening the size of a crown piece, through which could be seen the tongue and the soft palate. The motion of the jaw was limited, and although he was quite able to pass into his mouth a good sized ball of food he could not masticate properly. He experienced great difficulty in guiding his food, when masticated, into the pharynx, as it would pass out through the opening unless prevented by his hand. This rendered him very miserable, as anything like liquid food would run down his jaw and the side of his neck, and occasionally produce excoriations. The lips were entire; the angle of the left upper lip was curved upwards and inwards and was attached to the superior maxilla, while the lower lip curved downwards and was attached to the inferior maxilla. At the upper and outer part of the gap there existed an opening into the antrum, which was quite visible. Looking at him from the injured side his appearance was very revolting. The poor fellow had to keep the part covered with a pad of linen to prevent the saliva from flowing down the side of his face and neck.

On the 21st of July I performed the following operation. The patient was placed under the influence of chloroform, and with the able assistance of my colleague Dr. MacCallum I commenced by paring very freely the edges of the aperture. The integuments were then separated from their attachments to the superior and inferior jaw bones. The angle of the upper lip was freed, and the lip itself separated from its attachment to the incisive fossa, this gave ample room and the lip came down to its natural position without any dragging or strain on the nose. A large flap, semi-lunar in shape, was then taken from the integument situated over the body of the inferior maxilla and sub-maxillary space, this was perfectly freed and came up and fitted the aperture. The angle of the flap, somewhat V shaped, filled a similar shaped space which was left after turning the upper lip downwards. The angle of the mouth

and the angle of the flap were fixed in their places by hare-lip needles with the figure of eight suture. The edges of the rest of the wound were retained in situ by wire sutures. The flaps were so freely separated from their bony attachments that there was no straining of the parts, which greatly conduced to the success of the operation. On the fourth day the needles were removed, the sutures were, however, allowed to remain. He had on the following day a slight attack of erysipelas, which was relieved by the usual means. From this time all progressed favorably. The sutures were not removed until firm union had taken place. The patient left the hospital on the 8th August, eighteen days after the operation. The accompanying engravings are from photographs by Notman, and give a most faithful representation of the appearance of the patient both before and after the operation.

A Case of Popliteal Aneurism in a Woman cured by Digital Compression in twelve hours after failure with Carte's Compressors. By JOHN REDDY, M.D., L.R.C.G.S.I., &c. Physician to the Montreal General Hospital, &c.

Aneurism in the female is of such rare occurrence that I desire to record the following which was situated in the popliteal artery. I am indebted to Mr. Hugh U. Bain for the notes of the case to July first.

Mary Ann Foy, aged 59, was admitted into the Montreal General Hospital on April 6th, under the care of Dr. Reddy suffering from a large popliteal aneurism. Is a strong well built woman; has been married and has had two children. On questioning her found a satisfactory family history. Her father died in his 101st year, and her mother is still living and in her 100th year; has had six brothers and four sisters, three brothers and one sister still living. One brother died of dropsy, another of phthisis, the third one died very suddenly, cause of death could not be ascertained. One sister died of phthisis. Husband died 38 years ago. Both

children died; one dying when aged 20 of phthisis, and the other of scarlet fever.

Previous general health has always been good. Has worked hard most of the time, and for the most part as a general servant. Twelve years ago had an attack of acute rheumatism, was three weeks ill, had great pain during this attack about her heart, and had probably some heart complication. At present, however, her heart is perfectly healthy, this is the only severe illness she has ever had. Menses have always been regular.

Present illness. About five weeks ago she felt a pain in her right foot and leg. Pain increased and foot and leg swelled considerably. One day when scrubbing, was seized with what she thought was a cramp, attended with much pain; this soon disappeared and she felt quite well for a few days. These pains returned, running from the knee to the toes, and especially in the calf and side of the leg, pains present night and day, she applied pain killer, alcohol, and camphor, &c., but with no benefit. Then, three weeks ago, when one day sweeping, she felt a sensation as if something had burst or snapped in her leg, and would have fallen but for the broom in her hand; pain now was most intense. Before this, could walk, but was unable to place right heel to the ground; could not now walk at all, could not rest at night; continued to get much worse, and was admitted into the Montreal General Hospital on April 6th, when a large sacculated aneurism was discovered, filling up most of the popliteal space.

April 8th.—To-day Dr. Reddy applied two of Carte's compressors over the femoral artery, one at the apex of Scarpa's triangle, the other two inches below Poupart's ligament. By means of these, pulsation in the tumour was easily controlled, and could at will be obliterated. The leg was also carefully bandaged with flannel from the toes to the knee. For the first few hours suffered intense pain from the compressors. Pressure was made alternately with

the upper and lower tourniquets, changing them every five and ten minutes. Was given chloral grs. xx, which gave her some relief. Complained most of the lower tourniquet which, Dr. Reddy, about 7 p.m., had replaced by another one. This relieved her a great deal, and the pulsations were now more easily controlled; at 12 p. m., given Potass. Bromide a drachm.

April 10th.—Pulse weak, 88, suffered much during the night, was given two draughts of chloral, but got very little sleep, complains now of great pain in foot and calf of leg, which are much swollen, a good deal of venous congestion; feet, very cold, were wrapped up in cotton wool. Has no appetite and feels much exhausted.

April 11th.—Slept tolerably well, pulse 88, temperature $97\frac{4}{5}$; given two draughts chloral during the night. Instep and side of leg are very sore to-day, bandage reapplied and gave much relief; swelling in leg less, and tumour has a much firmer feel, especially on its outer margin; appetite fair,—given milk diet, and a pint of milk extra.

April 12th—Pulse 80; skin cool; still much pain; less pressure now required to control the pulsation, and pulsation felt now chiefly towards the centre of the tumour.—14th—Beginning to feel quite firm,and coagulation is apparently taking place. At 8 p.m. pain very severe, was given hypodermic injection of morphia, pulse now 84, temperature $99\frac{2}{5}$.

April 16th.—Pulse 120 and weak. Little change up to to-day, has suffered a good deal but has been able to get several hours sleep each night. To-day the pulsation is much stronger and little progress towards a cure seems to have been made.

April 26th.—Leg not so much swollen, pain for the last few days has been not so great, sleeps well and has good appetite. Tumour to-day seems much harder, pulsation when tourniquets are removed is however still very strong.

May 28th.—Patient has continued in much the same

state up to the present time; pulsation apparently not much lessened, although the pressure has been steadily kept up. Has at times suffered much pain, very often requiring draughts of chloral or morphia, sleeps freely, and appetite good. Pulsation has for the last few days been gradually getting less, and tumour has now quite a firm feel. To-day, for the first time, the clamps and bandage were removed, and on examination scarcely any pulsation was perceptible. The tourniquets have now been on exactly seven weeks.

June 10th.—Patient, up to this date, has made little or no improvement; the pulsation varies much, at times quite strong and again almost imperceptible; very little pain has been complained of, and can eat and sleep well; leg is still much swollen. To-day Dr. Reddy ordered reapplication of the tourniquets.

July 1st.—Up to this time, when I ceased taking notes there has been no change worth noting, there is still quite strong pulsation in the aneurism.

I would remark here that owing to the restlessness of my patient the compressors had to be laid aside on the 28th May, when it is probable that only a few days more were necessary to ensure complete consolidation of the sac. From June 10th till the day digital compression was begun, she had the compressors on but chiefly uuder her own control.

August 5th.—On examination to-day I was forcibly struck with the appearance of the aneurismal tumour, it had within a period of forty-eight hours become suddenly enlarged, much softer to the touch and the pulsation was nearly as strong as at her admission; tying the femoral artery appeared to me now to be the only safe course to adopt. The measurement of the tumour across patella was 22 inches, opposite side 14½ inches.

August 6th.—At a consultation to-day it was decided to try digital compression for a period of 24 hours, that failing,

to tie the artery, the staff of the hospital and students attending kindly volunteering to assist. This treatment was commenced at 1 o'clock p.m. and at the end of two hours slight consolidation was manifest ; at 1 a.m. the 7th, (just 12 hours from the commencement) neither pulsation nor bruit were distinguishable. Gentle compression was, however, kept on till 1 o'clock p.m., to render the case (if it were possible) a more perfect success. Measurement of the tumour to-day, same as before. A flannel roller was applied and the leg wrapped up in cotton wool, when compression was commenced a few hours afterwards, she suffered from retention of urine, which I relieved with the catheter ; during the night she had a few doses of morphia and a hypodermic injection to allay the pain and restlessness caused by the constant pressure which hardly produced an abrasion, great care being taken to use occasionally finely powdered chalk over the part.

A gradual diminution had taken place in the tumour of a quarter inch a day, from the 8th to the 16th of August, this has been steadily but slowly going on since that time, and the measurements are now (13th November) round side across patella 14 inches ; around tumor, same place, 17½ inches.

She is not able to walk yet, nor can she press her heel firmly to the ground ; all pain and tenderness are, however, entirely absent.

I desire to express my thanks to the hospital staff, and to the following students: Messrs. Tunstall, Burland, Davis, Ritchie, Livingston, Levi, Fenwick and Bain, and Drs. Cameron, Mines and Cline, who gave me such valuable assistance, and thus rendered the case a complete success.

877 St. Catherine st., Nov., 1874.

Can Anything be done to stop the Increase of Insanity and Imbecility? By HENRY HOWARD, M.D., Medical Superintendent of The Provincial Lunatic Asylum, St. Johns, P.Q.

The importance of the foregoing question will be at once admitted, when we see that by the last Census, there were in the Dominion of Canada 9,423 persons of unsound mind, and that in the Province of Quebec, alone, there were 3,300. All scientific men agree that the question is assuming grave importance; but the difficulty is to see what can be done. I believe the best way to arrive at a sound conclusion would be for those who have the treatment and management of the insane to honestly express the views that observation has enabled them to arrive at; and believing this I have prepared the following remarks, and, as some of my statements may be wilfully misconstrued, I beg at once to state that my only object is the advancement of science, and to do my best to arrest a disease that I consider worse than death. With this object it is necessary that I draw a distinction between the adult and the infantile population. To the first I must appeal to themselves for themselves. For the latter I must appeal to parents and teachers. I fear there would be no use in my speaking of the marriage question, for I believe men and women will continue to do as men and women have ever done, and that is marry for *love*, without any thought of what the offspring of the marriage will be. Well love, after all, is about the best guide, and certainly no one should marry without love, but I do hold that if it be at all possible, a man or woman who has had insane parents should not marry.

Insanity is a mental disease produced by some abnormal state of part or whole of the mental organization; whether the moral or intellectual faculties, or both. If body and mind are not one, yet so close is the connection between them, that one cannot suffer without the other suffering

also, therefore the immediate or exciting causes, and they are many, that produce this disordered state of the mental organization, may be either mental or physical. Observation, however, shows that no man can go mad from any amount of mental suffering, unless he has in him an insane neurosis, that is, a pre-disposition, whether hereditary or otherwise ,to go mad. It is an established fact, founded upon observation, that in all cases of insanity there is more or less devitalisation of the mental organization; and again, that all suffering, whether mental or physical, diminishes vital power, or more correctly speaking, vital force.

Scientific men have established the fact that there are no two things in nature exactly alike, not even two blades of grass. We may therefore conclude that there are no two beings in the world whose mental organizations are exactly alike; indeed it is not very difficult to come to this conclusion, seeing how very few there are who *think* alike upon any subject, and this is nothing extraordinary, when thinking is so very independent of the will. Every man knows how frequently it happens that he thinks of the very thing he does not wish to think of, and that he cannot think of that which he wishes to think of.

In this paper I do not mean to speak of insanity from physical causes, such as apoplexy, softening of the brain, head injuries, &c., &c. I will confine myself to the more general cases that have come under my observation — those that occur from mental suffering.

Is it possible for a man to know whether or not he has in him an insane neurosis; and if he has, what precaution he can take to avoid exciting causes, or to bear up against the exciting cause when it comes, independent of any act of his? I think the best rule is, for every man and woman to believe they have in themselves the insane neurosis. To live as if they had, can do them no harm. Let each and every one avoid *pride*, *covetousness*, *lust*, *anger*, *gluttony*, *envy* and *sloth or idleness*. Let all practise humility, liberality, chastity,

meekness, temperance, brotherly love and diligence. Let them do all they possibly can to preserve good bodily health and a conscience void of offence. If leading such a life does not keep a man from going mad, I do not know what will. But there are those who, even with the observance of these rules, will not stand the storm when it comes upon them. It will be said no man could lead such a perfect life without the grace of God.

To speak of the infantile population it is necessary to classify according to mental organization. Some children are born into the world of strong, healthy parents, physically strong, and of a mental organization healthy, strong and well balanced, that is, well balanced with regard to intellectual and moral faculties. These are fortunate children, that God and nature has done well for. A child of such a stamp, under ordinary training, becomes a great man, great in the true sense of the word, no matter in what position of life he may be. Whether statesman, professional man or mechanic, merchant or farmer, that man will do right, because it is right. He will grow up strong in body and mind. No amount of mental suffering will break him down. He will never find his way into a Lunatic Asylum.

Some children are born weak in body and in mental organization, but at the same time with the intellectual and moral faculties well balanced. Such a child having wise parents and teachers, who will attend properly to his physical and mental education, will have his moral and intellectual faculties well developed, as he will have his physical force; and although never equal to the other, he will nevertheless be a great man, and never likely to become deranged. But should he be neglected or badly treated in youth, God help him when a heavy trial comes on him. He won't stand very much.

Next we have the child, perhaps physically strong, with high intellectual and low moral faculties, that is, a badly balanced mental organization. If his moral education is

not well attended to in his youth, and by such education his moral faculties developed, he grows up a bad and dangerous man, and the more dangerous that he is smart and bright. Such a man is easily known by his moral crookedness and egotism. It is such men that we find sharpers, swindlers, gamblers, &c., men who worm themselves into the confidence of families, and make their homes desolate. These are men who do not know what honor means. They are *mean men*, who by detraction destroy the good name of their neighbors, men who are always wishing to make fortunes in a day, and sneer at their betters who are content to do their duty in that state of life to which it has pleased God to call them. These men are generally too clever to be caught in the meshes of the law; men who as a rule are the very curse of society. And when the storm comes on them, not having any strong moral faculties to fall back upon, in the end they break down, and become insane.

Next we have the child of high moral but low intellectual faculties. If such a child gets a fair chance, his moral faculties will stimulate his intellectual, so that he may rank in time, with ordinary men. But if his intellectual faculties are not well attended to in his youth, he will grow up a religious fanatic, a "one-idea man." He will try to cram his opinions down everyone's throat. A man that will be willing to be persecuted and made a martyr of; a regular pest to society, one of those men that O'Connell called a religious fool; he generally ends in becoming a religious maniac, and a pest to whatever Lunatic Asylum to which he happens to be admitted.

The next in classification are Imbeciles. These are children of very low mental organization, differing, however, in degree. There are some that can, by great perseverance on the part of parents and teachers, be brought to learn much, yet under no circumstances will they ever be of a strong mind, and very little trouble at any time will drive

them into a Lunatic Asylum. It is from this class, when neglected in youth and brought up in a state of moral depravity, that our most vile criminals come, and it is an extraordinary fact that they rarely ever go mad as long as they can carry on their career of crime. It is when a check is put upon their criminal acts, and they are obliged to live according to prison rule, that reason forsakes them. It would appear as if crime itself were the very safety-valve that saved them from becoming lunatics. It must be remembered what the peculiar class of persons I am speaking of is. I am speaking of the Imbecile, neglected in youth; one that has never learned anything but evil. As a rule these creatures are the children of debauched and drunken parents. Some imbeciles are so very low in their mental organizations as to approach the idiot, They are not in reality idiots, but they are not responsible beings, and should never be at large, but under proper surveillance. They are a most dangerous class of beings, as they will gratify their animal passions without any compunction. It is such creatures that commit the most revolting rapes and most horrible murders.

The next order of classification is the congenital idiot. He is generally, but not always, the offspring of imbecile parents. He is a creature so low in his mental organization that it is sometimes hardly possible to teach him how to put food into his mouth, he will more readily lick it off the ground like a dog than make any use of his hands. Sometimes it would appear as if they appreciated kindness but they are always vicious and treacherous. They are in appearance more like the monkey than the man. Fortunately procreation stops with the idiot, for they are both *sterile* and *impotent*, female and male. Let it be borne in mind that Lunatics can descend through all the different degrees of imbecility, till they arrive at the state of idiotcy, the only difference between them and the congenital idiot being that one has lost what the other never had.

From the foregoing facts I consider that it is self evident that there can be no *general* system of education, either physical or mental, suitable for all children; consequently I hold that much of the increase of insanity and imbecility is due to the present system of education, I would say the present high-pressure, forcing system.

Out of four hundred patients admitted into the St. Johns Asylum, over two hundred were at the time of admission imbeciles, so of these I take no account; of the two hundred lunatics over one hundred and fifty had more or less education, that is, could at least read and write, and many of them were what might be called well educated. Two were first-class educated schoolmasters, both got well but did not return to teaching. A third was educated for a schoolmaster, he got well and went to farming. Then I had four female teachers; two got well, one returned to teaching and is now in an Asylum in Upper Canada, the other is working in her father's house, who is a farmer; the other two are still in the Asylum, with but little chance of recovery. Then I have had a large number of clerks, half educated; some got well, some did not, and from the history of all these cases I have no doubt but that the exciting cause of insanity was overworking the mental organization, trying to force the mind into obedience to the will; and I believe it is this forcing of the mind at schools that is destroying the mental organization of so many, and is one of the great causes of insanity. It must be remembered that the mind is always acting quite as independently of the will as the liver, the heart and lungs, and the stomach. The power the will has over the mind is *limited*. In some organizations the will can direct the mind in a very great degree, but not altogether; in others the will can direct the mind in a very small degree. One boy can so direct his mind as to commit to memory a page of history in a few minutes; such was the power of the late lamented D'Arcy McGee. Another boy by no amount

of his will can ever commit much to memory, and the greater his effort the more he tires out his brain, and the less he knows. I would ask how can there be a general system of education for such opposite mental organisations? Every man in the world knows how difficult it is sometimes to call to mind the name of a person or place by an act of his will. Every man also knows how difficult it is to keep his mind fixed on any one subject for five or ten minutes. Certainly by mechanical means we can keep the mind fixed, that is, by employing our hands at any mechanical work; and perhaps it is because of this that we find so very few mechanics become insane, if they do it is because they break some natural laws, become drunkards, &c., and no man can break any of the natural or moral laws, and not suffer in consequence. There is no difficulty in knowing when a man or a boy has muscular fatigue from manual labor or over exercise; but it is not always easy to know when the mental organization is fatigued. I think, however, that it can be known; for example, when a man reads a couple of hundred pages of any book and finds that he remembers the first pages better than the last twenty or thirty, he may be very sure it is time for him to stop; he will retain nothing of what he is reading, and is only injuring his brain. So with a young boy at school, he repeats his lesson to his teacher tolerably well, the teacher is not satisfied, the boy is sent back to study his lesson again; the second time he repeats it worse than the first, although, poor boy, he has done his best, but his brain was tired, and very probably he is punished for what was no fault of his. I think the foregoing clearly establishes two facts; firstly, that where children are of such different physical and mental organizations, there can be no general system of either physical or mental education applicable to all, in fact, that what is good and wholesome to one is death to the other; secondly, as in all schools there is a general system of education, the only classification becomes

the ages of the scholars, and it must of necessity follow that our present system of education is injurious to the physical and mental growth of the scholars, and consequently that we have so many of our youth of both sexes growing up weak in body and weak in mind, and that there is such a terrible increase of insanity. There is no doubt that teachers are much to blame for this state of things; but then parents are much more blamable. In infantile life mothers as a rule leave their children too much to the care of servants, because they are either too lazy or too *fine* to take care of them themselves, in fact, because it is not fashionable. The last thing a child should feel at night is its mother's kiss, and it should go to sleep in looking at the mother's loving eyes; but instead of this the child is left to the tender mercy of a servant, who frightens it to sleep that she may have a chat with John, while the fashionable mother is gone off to hear that dear man Mr. Balderdash lecturing upon Physiology of Man, or some other equally interesting ology. Then, as children grow up, they are packed off to boarding-schools—*firstly*, to get them out of the way; *secondly*, because it is fashionable; *thirdly*, because the pride and ignorance of the parents are so great, that they fancy because they have money their children must have brains, and must be educated to the highest standard. So children are sacrificed to the laziness, pride and ignorance of the parents.

Another fault of parents from which the children suffer is that they do not know how to choose the proper teacher and when they have one they don't know how to treat him. They begrudge to pay an educated gentleman as well as they would pay their servant, and treat him with half the respect, and then, poor souls, they expect the teacher to take an interest in their children, and they expect their children to love and respect the teacher, and in time they find themselves disappointed in both their expectations. Let parents pay a teacher well that he may live as becomes

a gentleman, and let them in every other respect treat the teacher as their equal, then they will have some claim upon him, and if he is a true teacher he will do justice to their children, and the children will not only love and obey him while under his care, but will love and revere him during their lives; he will always be to them "THE MASTER."

It is a melancholy fact, from which great evil has resulted, that men and women fancy when they can do nothing else they can teach; now there never was a greater mistake; no person, no matter how well educated he may be, can teach, unless he is actually born a teacher; no act of the will can make a man a teacher, any more than an act of the will can make a man a poet. It is not necessary that all teachers should have the same degree of education, but all teachers should have the knack, should be capable of imparting the knowledge they possess, in part or whole, to those they attempt to teach, depending of course upon the soil they have to sow the seed in, whether it be of a high or low mental organization. A teacher should be naturally of a cheerful, mild, amiable disposition, loving and lovable, one that would rule by love and not by fear. I have no faith in obedience to God or man that is given through fear; cheerful, loving obedience is what can be depended upon, and this is impossible with the present system of education. The true teacher will make it his study to know his scholars thoroughly, to know their mental and physical capacity and treat their mental and physical powers accordingly. He will be able to say to parents whether their son is or is not fit for the highest order of education, and thereby prevent many poor boys from losing unnecessary time trying to learn what they never can learn, ending in disappointment and being disgusted with themselves and the world.

I have thus endeavored to show that the present system of education is bad, is radically wrong, and is the cause of one of the great causes of the spread of insanity. Some one more capable than I am must show how that system

can be improved. I will merely say there is too much study on the part of the scholars, and too little teaching on the part of the teachers. It is all books, books, morning, noon and night; no end of books. The books that a boy is expected to go through in eight or ten years, he could not go through in thirty. Let all this book learning be stopped; let there be more black-board and chalk, and lecturing from teachers. I believe a child should be taught its alphabet on the black-board, to spell on the black-board, arithmetic on the black-board, geography, history and mathematics all on the black-board, globes and maps, and from the mouth of the teacher; and instead of sticking every day for a certain time in badly ventilated school rooms, let the master frequently take his boys for a day out into the country, and there in conversation and amusement and good healthy exercise teach his pupils from Nature, lecture to them on the mountains, vales, rivers, trees and rocks. Thus will youths be truly educated; thus will they grow up strong in body and strong in mind.

HOSPITAL REPORTS.

Case of Excision of the Hip; Operation. By Dr. D. C. MacCallum. Reported by Mr. W. H. Burland.

James Anderson, aged 6, was admitted into the General Hospital, under the care of Dr. Ross, on the 22nd of May, 1874, in a state of high fever, and having a large abscess on anterior aspect of left thigh. He was weak, much emaciated and restless, and complained of severe pain. For the previous history of the case I am indebted to Dr. Ross, who saw the boy for the first time in August, 1872, when he was suffering from pain in the left knee, which was painted with iodine. There was slight flattening of the corresponding hip, and he limped in walking; his health had been failing for the last month, during which time the lameness was noticed. Latterly had been restless at night,

and would occasionally scream in his sleep. Dr. Ross diagnosed Hip-joint disease, and soon after put the limb up with a long splint, extension being made by a weight. This was kept up for three months, after which the long splint was replaced by a gutta percha splint and starch bandage. He was now allowed up on crutches, but sooner than was advised, as the parents would not leave him in bed any longer. The joint was at this time free from pain, but stiff. Through bad management and want of care the pain soon returned as bad as ever, and he screamed a great deal at night. The long splint with weights was replaced and left on for nearly three months longer. After this the case was lost sight of, and not again seen till his admission into hospital. The abscess was opened shortly after admission. In a few days a rather severe attack of erysipelas set in, which extended down the thigh and up the side for some distance. This caused the doctor to postpone operative interference at this time. Accordingly extension was kept up and the child was put upon nutritious diet to improve his general condition. He was treated in this way, getting also half a pint of porter daily, till the latter end of July. All this time the openings made to evacuate the abscess remained as sinuses communicating with the diseased bone. Dr. MacCallum, under whose care the case had been since the beginning of July, now determined to excise the joint. The boy's general condition by this time had improved considerably. He was fatter and in better spirits; suffering no pain unless the limb was moved; not restless. There was no cough, nor lung complication; and although there were signs of a hectic, febrile condition, from the prolonged suppuration as shown by his frequent pulse (120), high temperature (101.4°), and the readiness with which he perspired, he was now in as favorable a condition for operation as could be expected.

July 30th.—To-day the operation was performed. The patient having been put under the influence of chloroform,

Dr. MacCallum made a straight incision of about 3½ to 4 inches in length, over the greater trochanter. Cutting to the bone and freeing all attachments, the head of the femur was dislocated by rotation and sawn off. The head was greatly eroded. The extreme end of the bone formed a large fragment, which, with several smaller ones, was removed. It was not found necessary to remove any of the acetabular portion of the joint. The bleeding was inconsiderable. The wound was washed out with carbolic lotion and filled with lint saturated with carbolic oil (1 to 20). After the removal of the patient to his bed, extension was made by a weight of 3 lbs., and the leg kept in position by sand bags. His temperature on the night before the operation was 101.4°, and on the morning of the operation 100°. On the night after the operation it was 103.2°. Next morning it had fallen to 100.4°, rising again on that night to 103°. On the following morning it was 99.4°, and for the next two or three weeks it ranged between this or 99° about and 100.4°. His pulse varied in same ratio with the temperature. On the evening that temperature was 103.4° pulse was 148, falling next morning to 128, and after this it ranged between 100 and 120 for two or three weeks.

By the 4th or 5th of August the wound was granulating nicely and discharging freely. It was dressed daily with fresh lint and carbolic oil. Boy's appetite is good; he is getting chicken broth and half a pint of porter daily.

August 10th.—A slight diarrhœa set in for which he got Pulv. Cret. Co. c. opio. gr. x, every 4 hours.

August 13th–14th.—The wound is filling up from the bottom and sides rapidly. Patient is able to move himself in bed with less pain. Has slept better the last two nights than previously. A bedsore is forming over the sacrum. To relieve the pressure on this spot a pad was made with a hole in the centre. The sore was painted twice a day with a solution of Hydrarg. Bichlor gr. v to the oz.

2 oz. brandy was substituted for the porter which he had
king.

Sept. 9th.—Notwithstanding the diarrhœa which obstinately persists, the boy is getting on very well. His appetite is good, and he is fatter than he was. The wound has been progressing very slowly lately. Red wash is now substituted for the carbolic lotion, and the edges are drawn together by adhesive plaister. He is now taking cod-liver oil. The old sinuses have not closed.

About the middle of October the extension was given up, and at the end of the month the boy was allowed out of bed. He left the hospital on the 8th of November, at which time his condition was as follows:

The actual shortening of the limb by measurement is but one inch, though apparently it is much greater, from the position in which the leg is kept. The knee is flexed, and the pelvis drawn up on that side. The toes also are inverted. When the boy is placed flat on his back, there is noticed a bulging of the affected hip. The circumference here is 11¼ inches, while at the same part of the opposite leg, it is 10 inches. The adductor muscles are tense, and there is considerable induration of the parts around the wound. One of the old sinuses is still discharging, and one has appeared at the bottom of the incision which had been made at the operation, which had but lately healed up entirely. The rest of the incision is cicatrized. There is no pain complained of, and with slight support the boy can walk, the toes only of the affected leg reaching the ground. His general health is excellent. He eats and sleeps well and is in good spirits.

Case of Lithotomy in a Child, by Dr. D. C. MacCallum, reported by Mr. J. Dorland.

J. F., a French child, 4 years old, was admitted into hospital on the 16th of September, 1874. Was born of healthy parents, but eighteen months ago began to suffer from occasional and sudden stoppage of urine, to be restless and fretful, and to show a constant desire to

handle the end of his penis. These symptoms increased steadily, till the mother brought the child to the hospital to consult the medical men there. The restlessness and suffering of the child had impaired its appetite and general health somewhat latterly. Dr. MacCallum examined the child with a sound and detected the stone, which, from the difficulty of finding it, the very slight click, and the sensation communicated to the instrument, he concluded was very small. It is, perhaps, worthy of notice that a cousin of this child, of about the same age, was operated on for stone by Dr. Ross three or four months ago.

September 18th.—*Preparatory to the Operation.*—To-day an injection was given to the child. Its bowels had not moved for 36 hours. After the introduction of a curved, groove staff, and the detection of the stone to the satisfaction of all present, the incision was begun about half way between the anus and scrotum, a little to the left of the median line, and extended downwards and outwards with the usual precautions. The staff was readily found and incision extended into the bladder. Now the operator experienced some slight difficulty in getting hold of the stone, the bladder was so easily pushed up and the stone was so small. At last, however, he got hold of it between a scoop and his index finger and brought it out. The stone was of uric acid, having the appearance very much of a coffee bean in size, shape and color, having even the groove along the centre. There was a good deal of oozing, which was checked by application of ice in the wound. The child was now put to bed and a large sponge applied under his buttocks to absorb the urine as it dribbled away through the wound. Barley water and one pint of milk were ordered as diet.

Towards noon next day he had a chill, after which his temperature rose to 100° and pulse to 140. By the next day pulse and temperature fell and the child was very comfortable, sleeping and eating well, but, naturally, irritable.

The oozing had returned occasionally from the wound and rather freely, but was always stopped by application of ice. On third day was taking chicken broth and beef tea. The urine gradually began to come away by the urethra and less by the wound until the 26th, that is, seven days after the operation, urine came through the wound. The wound is granulating nicely, and on the 30th, as all the urine was passing by the urethra and everything progressing favorably, the child was taken home.

Case of Malignant Disease near the Cardiac Orifice of the Stomach—Cancerous Enlargement of the Head of the Pancreas—Perforation—Death—Autopsy. Reported by Mr. S. J. TUNSTALL.

M. M., aged 25 years, was admitted under the care of Dr. Godfrey, into the Montreal General Hospital, 11th Sept. 1874, complaining of obstinate vomiting and cramps.

She had been employed for a number of years in one family, as a tablemaid, and has always maintained the reputation of being an active, faithful and sober person. Her family history is unexceptionable, while quite young, she seemed to enjoy perfect health, although she has always been afflicted with occasional attacks of Vertigo. Some five years ago, she began to be troubled with severe pains in the back and side which have continued more or less ever since. The pain is described as bearing down and dragging in its character. Two years ago, she had a sharp attack of what was called muscular Rheumatism; while more serious symptoms set in about one year ago. Vomiting then was for the first time noticed, and profuse salivation with occasional attacks of pyrosis supervened—Dyspepsia was soon added to her troubles,—so severe at times that she was unable to make the slightest exertion. Up to this time she was a strong, healthy, well developed young woman; but emaciation has ever since gone on slowly but surely, till now, her face is drawn and pinched, she is sallow, weak and

reduced almost to a skeleton. The heart sounds are quite normal. A distinct bruit can be heard at the epigastrium. Upon deep and firm pressure a round solid tumour in the epigastric region can be made out, which gives to the fingers the sensation of pulsation. She complains of severe pains extending from the lower lumbar to the sixth dorsal vertebra, and pains somewhat less severe in the cervical region. These pains are increased by exposure to draughts of air. Obstinate vomiting has persisted for some days, which however does not seem to cause much nausea or distress. She complains of dyspepsia and cramps in her stomach—malignant disease of the cardiac orifice of the stomach was diagnosed. Counter irritation was applied to the Epigastrium by means of a blister: the following pill was ordered to be taken three times a day:

Ext. Bellad.
Argent. Nit.
Pulv. opii aa gr ¼

She was put on milk diet; lime water being used with the milk.

Under this treatment, the irritability of the stomach seemed to disappear, gradually moderate quantities of liquid food were kept down and after a time a piece of roast chicken was relished and retained. On the 13th of October the pills, which had been persevered with steadily, were discontinued, and a pill containing half a grain of Valerianate of zinc was ordered instead.

On the 17th diarrhœa set in, accompanied by severe pains and cramps in the stomach and bowels. This diarrhœa with cramps continued with more or less severity till she died. The evacuations were light, varying from a light clay to a dark chocolate color; they were thin, and at times very slimy, containing ropy curdy masses and flocculi; they were always most offensive. Various remedies were tried, but nothing seemed to check the diarrhœa, remove the pain, or change the unhealthy nature of the stools.

Castor Oil and laudanum, chlorodyne, a pill of opium, a pill. of sulphate of copper and opium ; injection of starch and laudanum, a mixture of port-wine and decoction of logwood were faithfully and repeatedly tried, but none of them afforded permanent relief.

On the 9th of November, she sat up for a while in the morning, and seemed to be more free from pain and in better spirits than usual. At 12. 30. she complained suddenly of a sharp severe pain in the stomach, and fainted : restoratives were at once administered ; she recovered in a few minutes, and calling for the bed pan she passed a large quantity of blood. Her face became quite blanched. her breathing rapid, her pulse irregular ; she complained bitterly of excruciating pain about the Epigastrium, and at 1. p.m. she died in great agony, with all the symptoms of collapse.

Autopsy—Twenty two hours after death.

Rigor Mortis—Well marked.

The body was much emaciated, and the muscles greatly wasted.

Abdomen—On opening the abdomen, a large quantity of blood, along with portions of the contents of the stomach, was found in the peritoneal cavity.

Stomach—A large cancerous mass existed close to the cardiac orifice of the stomach ; perforation had taken place in this mass, leaving an aperture with ragged, thickened edges about three fourths of an inch in diameter. The cardiac orifice was not constricted to any serious extent by this mass as the little finger could be easily passed through it. The pyloric orifice was quite healthy.

The stomach itself was distended with a clot of blood and with some liquid food she had taken a short time before death.

Pancreas—The head of the Pancreas was much enlarged and the seat of extensive malignant disease. Upon cutting into it, a large cavity was found filled with old fibrinous masses and a recent clot of blood. This cavity was largest

in the head but it extended also throughout about three fourths of the body of the Pancreas. Its walls were ragged thickened and irregular. The duct was quite pervious throughout. The coats of the arteries were quite thickened and atheromatous, and all the vessels were much enlarged. A bristle was passed through a large branch of the Pancreatico—Duodenalis, into this large cavity in the head of the Pancreas proving that the coats of this vessel had been eaten through; this, in all probability, caused the hemorrhage which proved so rapidly fatal.

Duodenum—A clot of blood was found between the coats, in the concavity of the descending portion as it curves round the head of the Pancreas—otherwise quite healthy. The other viscera were quite normal.

Reviews and Notices of Books.

Essays on Conservative Medicine and Kindred Topics. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine, in Bellevue Hospital Medical College, New York: Philadelphia. Henry C., Lea, 8 vo. pp 214. 1874.

We have perused Dr. Flint's modest little volume with very considerable interest—an interest principally engendered by the fact that the topics discussed are really the most important in the practical medicine of the present day. Nothing probably assists us more in understanding and appreciating the bent and genius of the medical mind of this living generation than such reflective essays as these. The scepticism and doubt produced by our finding on retrospection how completely medical practice has been revolutionized, how few teachings, and methods and theories have been able to withstand the test of even a comparatively short space of time, is apt to give rise to an uncomfortable sensation of uneasiness concerning the soundness of the views of

the present day. Such however should not be the case. The firm foundations being laid for rational and scientific medicine cannot be shaken, and although we know that our Art must always be progressive, yet we should be glad to know so much and be hopeful for the future.

The term conservative has for some years back been very commonly used in Surgical parlance, but we remember to have heard it but very seldom in medical—and whilst there is amongst Surgeons a clear and distinct and ever-present idea that what they do must be done *conservatively*, we are not sure that with all medical practitioners this idea is at all so clearly presented to their minds, and yet there can be no doubt that the one is just as important as the other. There is a great deal in the constant and habitual use of a term of this kind. The mere employment of the word tends to direct the thoughts towards the principle underlying any line of action. Every surgeon of the present day prides himself upon the *conservatism* of his practice, and so also, as indeed all the great triumphs of the medical art have been accomplished by conservatism, should the physician take delight in showing how his practice has conformed to the doctrine of the conservation of the vital forces. In olden times the surgeon would boast of the number of his amputations and the skill with which they were performed, now he tells of the number of times in which, by skill and management, he has preserved limbs otherwise doomed. So again used the physician to parade the boldness with which he would attack diseases by bleeding and depletion and nauseant prostration, now on the other hand he shows how lives are saved by holding his hand from these violent measures and by hoarding the vital energies and fluids, trusting then to them to oppose the forces of disease, in fact by Conservatism.

The conservative physician is thus defined. "He shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable

course without active interference. He resorts to therapeutical measures which must be hurtful if not useful, only when they are clearly indicated. He appreciates injurious medication and hence does not run a risk of shortening life by adding dangers of treatment to those of disease." It is then briefly shown how, with the progress of medicine during the last twenty-five years, these conservative principles have been generally developed until now they have become of paramount importance,

The first Essay is entitled Conservative Medicine. Besides this, there are seven others as follows, on Conservative Medicine as applied to Therapeutics. Conservative Medicine as applied to Hygiene—Medicine in the Past, the Present, and the Future—Alimentation in Disease—Tolerance of Disease—The agency of the mind in Etiology, Prophylaxis, and Therapeutics. Divine design as exemplified in the Natural History of Diseases. All of which contain much that is interesting presented in an easy and unstrained style which suits the subject.

Although these Essays have separately appeared before in some of the American periodicals, we dare say many of our readers have not seen them, and to those who have not we recommend them as well worthy of perusal.

Therapeutics and Materia Medica. A systematic treatise of the action and uses of Medicinal agents, including their description and history. By ALFRED STILLE, M.D. Professor of the Theory and Practice of Medicine and of the Clinical Medicine in the University of Pennsylvania; Physician to 5th Joseph's Hospital; &c., &c. Fourth edition. Thoroughly revised and enlarged. In two volumes. Philadelphia, Henry C. Lea, 1874, pp 1644.

The profession generally is deeply indebted to American authors for excellent works on pharmacology. No better ones, for what they profess, have been issued anywhere than those of Beck, Harrison, Mitchell, Tully and Wood. With them we have much pleasure in associating the production

of Stillé, above named, for comparing it with them, whether as a well digested compilation or as the record of the writer's own experience and views, it is entitled on the whole to at least equal favor and in some particulars to preference.

The more familiar title "Materia Medica and Therapeutics,"— is transposed in the present treatise to "Therapeutics and Materia Medica." This inversion of the old order accords with the design of the author, which was to devote by far the largest part to Therapeutics, or to the effects and employment of medicines, and the smallest to Materia Medica proper, or the consideration of medicines in their physical, chemical and pharmaceutical relations. In his preface he expressly tells the reader he has purposely devoted less of his space to the strictly scientific portion of the subject, and has sought to illustrate more copiously than is usual in similar works its practical bearings. To the student, therefore, who wants all parts equably treated, it is not so well suited as to the physician who requires a reliable guide that he can consult in matters of actual business.

The latter will find that upon the uses of drugs these volumes are particularly full of information. If he desire to know the authority on which a remedy rests, or what it can do, or the account to which it may be turned, he has but to inquire within, and to facilitate reference— there is not only an index of medicines, but also an index of diseases with the remedies adapted for them, named under each head.

Nor has Dr. S. contented himself with giving merely the modern application of medicines, but, as a laborious antiquarian he has drawn largely upon olden times. Under "Medcal history," he has gathered in what Hippocrates, Dioscorides, Galen, Rhazes, and other fathers of physic, did with remedies that are still prescribed, and advancing onward from them, notes the estimation in which they were held

by others, among the Italian, French, German and English, in succeeding ages.

In treating his subjects, we could have wished our author had been less conservative. We will explain what we mean. Writers on Therapeutics who have preceded him in describing the classes of medicines *e. g.* Astringents, Refringents, &c., delight in interlarding their remarks with details which are either strictly physiological or belong to some other branch of science rather than the one they have undertaken to elucidate. They go out of their way to say something about the minute structure of an organ, or its functions, or the changes its secretions assume in various morbid states, or the effects of these upon the system generally. Too often, again, they plethorize their accounts with what is effete, with what is curious indeed as theory, but which has long since ceased to harmonize with more modern developments. From these faults Dr. S. is by no means exempt. He has run too much in the old groove. We have felt in reading him, it would have been better had he avoided repeating these mistakes and confined himself more to the question. The description of a class of remedies should be confined to what would be a gradual unfolding or explanation of the definition, so as to exhibit something of the demonstration of a problem. To introduce matter that is irrelevant, where much else might have been brought forward to directly elucidate, is to burden a subject unnecessarily and make it jejune.

Let us illustrate these remarks by Dr. S.'s chapter on Emmenagogues. It may be laid down as a veritable truism, that, if these agents (as they are usually defined) be medicines which can restore the menses when absent from certain morbid causes, they can only do so by reproducing menstruation as it occurs naturally or without their aid. They must accordingly act upon the same organs as those upon which the influences act that bring about the return of the catamenia in health. These organs are primarily

the ovaries. Emmenagogues therefore must excite these same structures, the ovaries. And they must also induce in these parts the same train of occurrences as are known to ensue during normal menstruation or where they have not been previously used. In turning to a book on Therapeutics it would not be too much to expect to find the state of that science in accord with the light that other departments cast upon its co-related subjects. In the instance adduced it would not be too much to look for an accord in the explanation of the *modus operandi* of Emmenagogues with the present knowledge of obstetric physiology concerning menstruation. And such expectation seems the more justifiable in examining a work so recent and so comprehensive as Dr. S.'s. But what is the fact? Like his predecessors, who have written books before him and treated on the same subjects, his explanation of the action of Emmenagogues leaves out of consideration altogether the all-important ovaries. It is like the play of Hamlet with the character of Hamlet left out. Instead of referring to them, we are carried back to the dark days when menstruation was laid solely to the account of the uterus. It and it alone is mentioned as the organ which is the special seat on which these agents exert their power. They are in the words of Dr. S. "all medicines which are employed to influence the uterus."

As in other cases, this error, besides leaving the un-informed reader in ignorance, leads to false impressions. For example: Admitted that the menses are secreted by or extravasated from the inside of the uterus, it might be supposed that this was a proof of the influence of the emmenagogue on that very part. As a fact, however, it is not so. The medicine has no such influence on the uterus. The influence that causes the latter to secrete is from an ovum descending through its cavity. And the only influence of the remedy is upon the graafian vesicle from which that ovum has escaped. Any effect upon the uterus is, therefore,

a secondary, and subordinate, and dependent one. So essential is the primary or ovarian influence that without it no influence limited to the uterus would be of the least avail.

And this brings us to another mistake which such a definition of emmenagogues, as Dr. S.'s suggests. From it, one might infer that any remedy that can influence the uterus would be an emmenagogue. Just the opposite, however, is the case. There is one agent, ergot, in particular, which can very powerfully influence this organ, but it is not a restorer of suppressed menses in the same degree or certainty that it is an exciter of uterine contractions. Indeed, it is very doubtful if it has any emmenagogue virtue at all It is true a few have reported success after its use in Amenorrhœa. But we are sure, most practitioners do not prescribe it in that disorder, and, those who have tried it have not had from it the same positive results that have attended its administration in cases of powerless labor. The appearance of the catamenia after its use an odd time or so proves nothing at all. Since the occurrence may not have been due to it in the least,—but may have been the effect of concurrent circumstances re-establishing the patient's health, or removing some hinderance to the menstrual function. It is well known that no other secretion is more likely to be influenced by the state of the constitution than the catamenial. A medicine, moreover, like Ergot, that acts upon muscular fibre could not be expected to act locally upon the ovaries which are destitute of such texture.

We will now illustrate from Dr. S.'s, further description of Emmenagogues,—what we have above said about the irrelevant treatment of Therapeutical subjects. After the first few lines,—he proceeds to enlarge upon the importance of the function of menstruation,—then upon the relation of the disorders that follow its cessation,—next upon the groups or categories into which cases of menstrual

derangement, may be divided, with more or less account of them, What are these ? if they be not beside the strict question of the action of Emmenagogues. Yet, they take more than half the space allotted to the discussion of the latter in the introductory chapter.

And what, in this special instance, is worse still, is that the want of precision as to what these remedies are is still more plain in the little left. Determined to stick to his flag that they are "all medicines, which are employed to influence the uterus,"—he makes no separation, nor mention by the name, of Ecbolic or Abortive agents,—but runs them all as one with the rest. Nay, he even includes with them, Ether and Chloroform as relaxants of the Os uteri. Nor is this all, even such beggarly things as "*milfoil*," "*tansy*," "*dittany*," "*mugwort*," "*horehound*" *and* "*chamomile*" are laid under contribution, and taken in as members of the class. And yet more ; without any division of Emmenagogues into Absolute and Relative, the umbrageous "all" is made so accommodating as to include with the foregoing "sedative emetics," "saline cathartics," "revulsives," and "most of the aromatic plants." Finally, multifarious though these be, there are still more to come which, as stated by the author, are general bleeding, mercury, iron, baths, cupping, leeches, electricity, air, exercise, food, "and finally marriage." Before such a *pot pourri* of emmenagogues, surely, the offending ovaries, or as he would say, "the uterus," must give up the strike and go back to work!

These are instances of the blemishes in Dr. S's work which, as we before implied, spring from too great conservatism, from his having been too diligent a collector of simples, and too successful a reflector of statements made by others before him. Had he re-cast the whole matter and adhered more closely to his subject,—had he used necessary prunings, and indulged more in a philosophy *au courant* with the advance of science generally, he would have been

more original and have done better work in the vast fields of Therapeutics. If, however, we regard his treatise as a compilation solely, we must admit that it is a lasting monument to his extensive learning, deep research, indomitable perseverance, and laborious painstaking.

The present edition is a careful revisal of the former work. In it has been added about 250 pages of new matter. Several new articles have been introduced, and the chapter on electricity almost entirely re-written.

We think it would have been made still more useful had the preparations of the British Pharmacopœia been inserted, and distinguished from those of the United States Ph. We would respectfully suggest that the omission be supplied in the next edition. To Canadian Physicians who follow the first, this addition would do away with the necessity for turning to another book for information upon these subjects.

Periscopic Department.

THERAPEUTICS.

On Various Therapeutic Uses of Calabar Bean; Especially in Tic. By W. Munro, M.D., C.M., Cupar-Fife, late District Medical Officer, St. Kitts, West Indies.

Having in 1871 pointed out the probability of Calabar bean being useful in cholera,* from the power which Dr. Fraser has shown it to possess of expanding the peripheral blood-vessels, I have since then thought it might be useful in many other diseases, in which, from one cause or another, these blood-vessels are contracted, but was prevented by various circumstances from applying my ideas in practice

* *Edinburgh Medical Journal*, October.—I may here say that, from what has since become known of the doses which may be given, I would be inclined to begin in cholera with one-third instead of one-eighth of a grain of the extract, as is mentioned in my paper ought to be injected

until October last. Calabar bean had, up to that time, so far as I am aware, only been used in tetanus, although it has recently been used in general paralysis and acute mania. (BRITISH MEDICAL JOURNAL, January 10th and 17th).

Tic Douloureux.—Believing that in *tic* the blood-vessels of the part affected are in a state of contraction, I have made use of the bean in several cases with exceedingly satisfactory results. Very short notes of the cases are appended. I may say here that Cupar is a rather low-lying place, in which tic of an intermittent form which disappears on the person leaving the town, even for a time, is not uncommon. Fever and ague in those who have had it abroad is apt to return. There is, in fact, a slight malarious influence evidently present in the atmosphere.

CASE I. October 16th, Mrs. D. had tic on the left side of the head. I applied one of Streatfeild's ophthalmic squares to the eye. In about five minutes, she expressed herself as decidedly relieved. This was not a very severe case, which may account for only one square being sufficient.

CASE II. November 6th, Mrs. X. had severe tic, with intense photophobia, brought on by reflex irritation after several days' severe uterine pain, which had now passed away. I used one square, in the right eye. In ten minutes. she was able to open her eyes and converse cheerfully. In half an hour, I used another, relieving the pain entirely, only leaving a "slightly bruised feeling," which was almost entirely removed by another half. The pain did not return, and no more Calabar bean was required. The pupil was never contracted.

CASE III. Miss J. K. had severe intermittent tic, with anæmia. At present, it was almost remittent. She had very severe pain all over the left side of the head, and some on the right side. The pain was intense over the left eyebrow. The pupils were much dilated. She was first seen on December 10th, at 11.15 A.M., between which time and 4.30 P.M., three squares and a half were used (from half to two at a time) in

each eye. At 6.45 P.M., she had no pain. At 8.30 P.M., I found she had had a very slight short pain about 7 P.M. Both pupils were still dilated. December 11th, pain returned at 3 A.M., and continued almost constantly until 1.30 P.M., when I used two drops of a solution of extract of Calibar bean* (1 in 40) in the right eye (that being the side most affected). In fifteen minutes, the pain was much relieved. At 3 P.M., I found her asleep, but on awakening she felt slight pain on both sides of the head. I used two drops in the left eye and one in the right. In ten minutes, the pain was quite gone. At 9 P.M., she was sitting up, and felt quite well. From this time until December 26th, when I ceased attending, she could at any time stop the pain at once with the drops, which I found it convenient, however, to make of the strength of 1 in 32 afterwards. I treated her at the same time (from the 13th) with quinine and carbonate of iron, with decided benefit. I used the thermometer frequently in the armpit in this case, but observed no decided change of temperature attributable to the use of Calabar bean.

CASE IV. Miss T. had long standing tic, yielding to no treatment. It was only relieved by leaving Cupar for a time, and came back on her return. The pupils were generally much dilated, especially during an attack. I thought of using croton-chloral-hydrate in this case, but preferred the Calabar bean as being only local in action, as I think local remedies are always to be preferred for local diseases, when there is a choice. December 31st. When called, I found her suffering from intense pain over the eyebrows, mostly on the left side. I used two drops of a solution of 1 in 30 (partly lost) in the left eye, and one in the right. In about ten minutes, she said the pain was not quite so severe. I then used one drop more in each eye,

* I had to abandon the use of the squares, as I found that three or four were required at one time: but, could I obtain squares containing physostigmatin, I would much prefer them, the drops being a clumsy substitute at best, and not allowing of anything like the precision attainable by the use of squares, as well as being more troublesome to the patient. In experiments on the healthy human eye, I have found it necessary to use five and even six squares to produce contraction of the pupil and temporary congestion of the surrounding parts.

with the effect of relieving still more, according to the patient's statement, the localised pain ; but, on my return half an hour or so afterwards, I found her suffering from severe pain in the left eye, the pupils being contracted. The patient, being very reticent, had not mentioned to me that tic could be set up in the eye by even a drop of water getting into it, and even now said nothing to let me understand that the pain was that of tic (which unfortunately she was too well able to distinguish from other pains). Seeing the rather strong contraction of the pupils, I used at once one-third of an atropine square to counteract the effect of the Calebar bean, thinking the pain was caused by the contraction. The atropine acted only too well, evidently being assisted in its action by the tic, and the pain *immediately became more severe*. The dimness of vision common after the use of atropine remained in this case for three or four days, and frightened her, she being rather hysterical, so that she refused to submit to further treatment.

Thus, in this case, the only one which had not been perfectly satisfactory in its results, although the patient was not really benefitted by the use of the Calabar bean, the pain was, in the first place, according to her own statement, removed from its primary seat ; and, even although set up in the eye by the cold drops, it was evidently kept in check by the action of the bean, until the latter was counteracted by that of the atropine. In such a case, outward application of the tincture (which I suggested, but the patient would not use it) or the use of strong Calabar bean, or physotigmatin would be advisable.

Case V. This was a case of obstruction of the nasal duct, complicated by tic, which was relieved in fifteen minutes by a little solution of Calabar bean (1 in 15) applied with a camel's hair brush. It returned in six hours, but was relieved in ten minutes by the bean. It caused the eye to become more injected than formerly. The tic did not return, and the obstruction of the duct ultimately required operative

interference. The patient had been suffering from tic for two days continuously when I first saw her.

CASE VI. J. B., a man had severe tic on the left side of the head. He was seen on March 16th at 3 P.M. He had been suffering since early in the morning. This case being four miles from town, I used three squares and a half (they being in my pocket). In about ten minutes, there was almost total relief. In twenty minutes, two squares more relieved him entirely. The pain came on again during the night; but, having sent him a solution (1 in 30), he used a drop, and it relieved him immediately.

CASE VII. On May 4th, I had intensely severe tic over the right eyebrow, caused by want of sleep and wearing a tight hat all day. Having no stronger in the house, I had to use a solution of one grain to the drachm. Of this, two drops relieved me slightly; and two more in half an hour removed the pain entirely.

CASE VIII. Mrs. W., on May 16, had severe pain in the right side of the face, and was relieved in about half an hour by two drops (one first, then another) of a solution of 1 in 30.

CASE IX.—July 22nd, 12.30 P.M. Mrs. P. had tic in the left side of the head and face. There had been severe pain since 3 A.M. I used a half-square (one-tenth of a grain of extract in each square).* Relief was obtained in ten minutes. At 7.50 P.M., there was still a bruised feeling, "but no sharp pain." I used a half-square. The pain entirely ceased in ten minutes.—July 10th. The patient came back for more squares. This is the second patient who has done so.

CASE X. Mrs. M. had severe tic in the left side, recurring every evening for a week past.—5.45 P.M. I used a half-square (as above). She was relieved in five minutes. At 6.30 P.M., she was free from pain, "though there was still a bruised feeling." Both these cases were afterwards permanently cured by quinine. In them, as also in myself,

* These strong squares were very kindly sent me by Mr. Squire for trial.

and others in whom I have used the strong squares experimentally, the pupil always becomes *dilated*. These squares are very hard, and this may account for such an action, as they irritate the eye for about two minutes when used. Squares containing physotigmatin, could they be obtained, would be much better.

CASE XI. J. A. had syphilitic paralysis of the right third nerve, probably from a tumor, with external strabismus, ptosis, dilatation of pupil, and neuralgic pains on the side of the face. I used one square on July 4th. The pain was relieved.—July 5th. I applied one-tenth of a grain of the extract in the eye, causing congestion of the conjunctiva relieving the pain, and producing contraction of the pupil. In this case, the fact that the pupil became *contracted* is very noteworthy, as the third nerve could not play its ordinary part. Possibly the congested state of the vessels may have acted as a cause of contraction.

In none of these cases did I observe decided contraction of the pupil, except in Cases IV. and XI. In Case III., the pupil became smaller than usual, though never contracted to any great degree. In no case was vision interfered with by the Calabar bean—except slight temporary confusion in Case III., lasting about two hours. In the experiment referred to in the first note, vision was temporarily confused (after six squares had been used), but the confusion soon passed away. No general symptoms were ever observed. I am quite hopeful that anyone giving Calabar bean a fair trial will find it an useful and safe immediate remedy for tic, leaving time, in cases requiring such treatment, for the use of quinine and iron, or other medicines calculated to have a permanent effect. For my own use, I intend to obtain, if possible, stronger gelatine squares, that being, in my opinion, the most convenient mode of application, being easily applied and certain in action. The idea is a very ingenious one, and does credit to the inventor.

Derangement of the Heart.—CASE. December 12th

1873, A, R., a mill-worker, suffered from continuous pain in the left side, with occasional extra severe spasms. She was of florid complexion. Her lungs were healthy. The liver was normal in size. She sometimes suffered from flatulence, but not at present. She had been in constant pain for three days. The pulse was 88, irregular, intermitting, easily altered in number by exertion, sometimes increased, sometimes decreased in frequency; there were sometimes twenty beats in one quarter minute and twenty-four in another. She had palpitation. There was a rough *bruit* at the base with the first sound. As I had the patient under observation until March 21st, my notes are much too long, to be reproduced here. Suffice it to say that I began with one-sixth of a grain of the extract, giving immediate relief. This was continued night and morning for two days, the patient being relieved from pain. She increased the dose to a quarter of a grain, with good effect, but this I then only allowed once a day. For continued use, one-eighth of a grain twice a day [after larger doses at first] seemed sufficient. The *bruit* became much softer, and the pulse fell to 68 under the use of the medicine. On one occasion, being five days without the medicine, she became so ill with the pain in her side, [at the apex] that she had to leave off work. She was sometimes very irregular in visiting me, coming only when it suited herself, and, *when she required a new supply of medicine;* but I saw enough of her to convince me that the bean had a decidedly good effect. The case being one apparently of constriction of the aortic orifice, the bean would act directly by relieving that condition. Such a case in an hospital under hourly observation would be very valuable; as I saw it, the results obtained only point hopefully to further use of the drug in similar cases.

Febricula.—CASE. December 12th. My own child, a boy four years of age, was attacked by fever without any apparent cause. At 4.40 P.M., his temperature in the axilla

was 102; pulse, 128. I gave him one thirty-fifth of a grain of extract; and again at 5. 50.P.M., the same dose. At 6.30 P.M., the pulse, was 118; temperature 99.6; the skin having, from being dry, become quite moist to the touch.

A favorable opportunity has not occurred lately to me to try Calabar bean for the purpose of reducing temperature, but the result obtained in this one case, agreeing well with what could be expected from Dr. Fraser's experiments, viz,, expansion of the semi-contracted peripheral vessels, points to its use and cases in which reduction of temperature is desired and where there is nothing special to prevent it from being used.

Bilious Remittent Fever.—CASE. R. A. This was a case of "bilious remittent" fever, in which I gave cautiously up to half-grain doses, one grain being given in a day, producing slight drowsiness, and profuse sweating; and, independently of the ordinary course of the fever, bringing down the temperature from 105, at 7.45, P.M.,to 103 at 11.00, P.M. When the remittent character of the fever showed itself distinctly, I treated the patient with tincture of iodine, in doses of from ten to fifteen minims, thrice daily, which I have for some years used in preference even to quinine in such cases.

From this and other cases, I believe that, *if the strength of the extract can be depended on*, the doses given in the *British Pharmacopœia* [one-sixteenth to one-fourth of a grain] are too small for an adult. To produce any decided effect, one-sixth to one-half of a grain, and, *with* great caution, even higher doses should be given, of course beginning with small doses.

I am fully convinced that, in Calabar bean and its antagonist atropine, the *Pharmacopœia* possesses two remedies equally valuable with opium, if not more so. This value is not at present appreciated, but would soon be so were their actions made, more fully than they ever yet have been, the subject of observation in all diseases in which it may be desirable either to expand or to contract the vessels, by some hospital physician, whose position gives him the power of closer observation, and more accurate deductions than one working in private practice can ever hope to obtain.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1874.

INSANITY AND ITS INCREASE.

Amongst our original matter this month will be found a paper from the pen of Dr. Henry Howard, the superintendent of the Provincial Lunatic Asylum at St. John's, P.Q.

The question propounded by the author is whether anything can be done to arrest the increase of Insanity and Imbecility. The author says that in the Province of Quebec, there are 3,300 persons suffering from these mental conditions. This is alarming, and worthy of grave consideration, it is a most important topic, and as the author truly observes, the best way to arrive at sound conclusions is for those interested in these matters to express their convictions, if based on personal observations. The editor of this Journal has, on more than one occasion during the past twelve years honestly expressed his views on this subject. He has sounded a note of warning to the government of the day but without effect, as the old and effete law respecting insanity still exists without amendment. This law will be found in the 14 and 15 Vic. Cap. 83, and by its provisions "any person who is lunatic, or dangerously mad, shall by warrant of any two, or more justices of the peace be apprehended and kept safely locked up in some secure place within the District or County where such City, Town, Village Township, Parish or place lies, as such justices under their hands and seals direct and appoint."

In this act we find that the unfortunate who is lunatic or dangerously mad is subsequently visited by, or brought

before, two justices of the peace and two physicians, and upon their joint certificate the poor wretch is sent at last to a Lunatic Asylum. We have before pointed out that this unwieldy process, this inhuman treatment of persons suffering from mental disease is certainly followed by confirmed insanity. The brain is the organ of the mind, and although Pathological research has not been able in every instance to point out undeniably the lesion which exists in the lunatic or person dangerously mad, yet reasoning from what is observed in diseases of other organs, we infer that there must be some structural change sufficient to occasion the conduct of the person so afflicted. As scientific truths gradually unfold themselves man becomes cognisant that he is subject to certain ills and derangements of his body which are in a great measure due to his folly and error. Preventive medicine is now unfolding facts, which, had they been announced a century or so ago, would have been regarded as sacrilege and followed by condign punishment.

The brain is as subject to derangement as other parts of our body, and being of more delicate structure is more liable to be seriously injured, hence, it may take months to undo what has been done in a few hours, but this undoing demands scientific and prompt measures. Shutting up insane persons in a cell of a common jail and feeding them for weeks on skilly is neither a reasonable nor scientific method of treatment,—but the reverse,—and is certain to be followed by confirmed madness, which gradually lapses into imbecility. If we desire to lessen the number of cases of induced imbecility, we should first alter the present law. Having done so, then all those suffering from acute insanity should be removed without delay to an insane hospital, there to remain a reasonable time, when, if in the opinion of the medical officer of such Insane hospital, their case becomes confirmed or is no longer hopeful, they should then be removed to a proper asylum. Of course, this might be at

the outset, an expensive undertaking, but, in the end it would be a great saving, as the present system is every year adding to the number of permanent lunatics, many of whom would, we believe, have been restored to the industrial population, if judicious measures had been adopted at the outset of the disease. With regard to Dr. Howard's paper on the educational errors of parents and teachers, we believe every word he utters ; and furthermore, deem it is a matter of regret that his valuable observations will not reach the public eye, as our Journal is read by few other than professional men.

THE PROPAGATION OF TYPHOID FEVER.

The prevalence of typhoid or, as it is otherwise called, enteric fever is unusually great at the present time ; its rapid and alarming increase in certain localities is attracting much discussion on the nature of the disease and its mode of propagation. That typhoid fever is generated by a special poison or contagious principle is daily becoming more positively demonstrated ; but if it is developed by a certain thing, seed, fungus, or special contagious principle, it would appear that it requires an appropriate soil in which to germinate. Hence we have in certain localities whole communities stricken with the malady, whilst others subject to a like exposure (as far as we are able to judge) escape the ravages of the disease.

It is of great practical moment to ascertain if possible in what form resides the germs of this disease. There is much conjecture on this subject, but very little agreement, on any point, in the ranks of the devotees of science. Some hold that neglect of ordinary cleanliness of premises will be sufficient to create typhoid fever, whilst others state that no amount of stench, foul gases, or noxious effluvia from decomposing animal or vegetable matter, will generate the disease typhoid fever unless the germs of typhoid fever be there to act as a leaven.

From the observations of Dr. William Budd it would appear that typhoid fever is alone propagated by contagion, and he advances so many arguments on this head as to almost render fruitless any attempt at contradiction. He states that typhoid fever is never spontaneously germinated—any more so than is small-pox, scarlet fever or measles ; that it is propagated through a special virus or poison.

We will not in this place pin our faith to the doctrines of Budd or to what has been termed the pythogenic theory, but will simply say that in this city of Montreal there exist at the present time those very conditions which lead to the spread of the disease typhoid fever, and that those conditions have been created by the want of supervision of those whose duty it is to supervise and look after the public health. We have a Board of Health who err either from not knowing better, from being ill-advised, or from being powerless. Some weeks ago the annual work of emptying out the Craig street sewer was commenced. From the peculiar engineering skill exhibited in the construction of that sewer, which is one of the largest in the city, the soil from the upper parts of the city, from Cote à Barron downwards, lodges in the Craig street sewer, and almost fills its capacious cavity with a black muck of various compounds. We learnt with surprise that this vile mass, after removal from the sewer, is utilized to fill up certain streets, as in Ontario street, which, from having been recently opened, requires raising at certain points. When we were informed of this fact, we doubted it ; although willing to admit that our Corporation authorities were blind to the interests of the public, nevertheless we did not think that such a monstrous iniquity was being perpetrated in our midst. Let it be stated that the Craig street sewer receives the drainage from both General Hospitals ; these two institutions have withn them small-pox wards, and laying aside

the question of typhoid fever, small-pox is known to be readily propagated by exhalations and excreta from the bodies of those afflicted with that disease. Is it, then, to be wondered at that small-pox is at present alarmingly on the increase? But if we examine the records of our hospitals, or our mortality tables, we shall find that typhoid fever is likewise very prevalent. Now, with regard to the generation of typhoid fever, we care not which horn of the dilemma the Board of Health are placed upon, for certainly spreading on our public highways the filthy exuvia from our typhoid fever patients and small-pox patients is a most insane proceeding, and is undoubtedly followed by the very condition witnessed in this city at the present time—the rapid increase in the number of cases of both these diseases. Have the Board of Health any powers in the matter? or do their suggestions, if they have made any, fail to produce the desired effect in the stoppage of such iniquity? We are told that the matter removed from the sewers is not offensive; that it is sweet and clean, and rather a desirable substance for the purpose for which it used. Can our Health authorities inform us whether the germs which propagate small-pox or typhoid fever possess any odour. Do yeast germs in minute division possess any odour? Yet the smallest particle is sufficient to produce fermentation. To say the least of it, it is filthy, revolting, abominable and dangerous. It matters not whether these diseases are occasioned by a special seed or by decomposition: both conditions are here produced, and as matter is indestructible, we need not suppose that the covering up of this compost with snow, or its being exposed to the rigour of our winter, will in any way lessen the evil. The summer's sun, aided by the rains of spring, will liberate all kinds of gases, to be wafted into our open windows, and later on, this mass of filth will dry, be reduced to a fine powder, and be blown about by the wind into every quarter of the city.

It has been said that "the health of the people of any country should have the first and highest claim on the Government." Unfortunately in this country sanitary legislation is not even in an embryonic state. We are absolutely without the very first principles of sanitary legislation. In fact, we are in as bad a condition in that respect as were the people of England during the reign of Henry VIII. In those times, when disease and pestilence did occur, it was looked upon as an evidence of Divine wrath, which drove the superstitious to their knees, instead of stimulating them to ascertain the cause of the plague, with a view to its removal.

BOARD OF HEALTH.

MONTREAL, Nov., 1874.

DEAR SIR,—Will you please report the total number of cases of Typhoid fever and Small Pox you have had under your care, during the month of October, and make the necessary remarks on the cause of these diseases.

REPORT:—Please give the residence of the cases reported, in order to know the unhealthy localities, and take the necessary precautions.

The above is a circular which has been left with every medical man in the city, and we believe a sanitary officer is detailed to make a personal application for the information sought. We question very much whether the profession will comply with this request, and if even the returns become general, whether any good will result.

Although it may be desirable to obtain correct information on this important topic, yet the Board of Health are powerless and cannot enforce their demand. Typhoid fever is very general in all quarters of the city, but more especially where there exists a state of overcrowding of buildings for the accommodation of the poorer class. The system of covering every inch of ground with inferior residences, and filling them with tenants, which is to be seen in all

parts of our city, is very injurious to the health of the community ; it not only affects the community where such residences exist, but also those of the better class even to considerable distances. But is the Board of Health in a position to enforce compliance of speculators and builders, in common-sense principles in the creation of tenements. Public health, is not to be preserved by the various means adopted by our Health Board. Statistics are all very well and useful if they can be relied upon, but to be useful, they should be general, not a few desultory remarks from a few individuals. It appears to us that the Board of Health is beginning its work at the wrong end. Let us have a comprehensive public health act, and then will the Boards of health in our various cities be in a position to cope with the difficulty. The indication of the residences of individual patients, as is requested by the above, will not point out the unhealthy localities, and what is meant by "taking the necessary precaution" is utterly beyond our comprehension. What necessary precaution is the Board going to take supposing it be reported that the wife or daughter of one of our merchant princes is lying dangerously ill with Typhoid fever. The Board of health has lamentably failed in its mission : if instead of sending round silly and useless circulars, it took upon itself to supervise the sanitary state of the city generally, we would not have to complain of the many evils which exist amongst us, not the least of which is the spreading of sewage matter on our roadways.

VACCINATION AND SMALL-POX.

We extract the following from the *Gazette* of the 2nd instant. It speaks for itself, and is identical with the observations and returns of the London (England) small-pox hospital, which we published some months ago :—Ed.

"A grossly false and pernicious statement has of late been somewhat widely circulated by the opponents of

vaccination, and not a few credulous persons have been misled. It has been asserted boldly that vaccination increases the liability to take small-pox, instead of being the great and only safeguard against its attacks. These and similar statements are freely made and persistently circulated, although no facts or figures can be brought forward in their support. But reliable facts should be the best answer to the ignorant prejudices and to the absurd and criminal representations of such people. The following statistics have been compiled from the books of the Montreal General Hospital, and any person can assure himself of their correctness by calling at the Hospital and enquiring for himself. During the past twelve months there have been 55 *unvaccinated* persons admitted into the small-pox wards. All of them except five have had the confluent form of the disease, *i. e.*, the serious form; and out of the 55 who were admitted 28 died, showing a mortality in the *unvaccinated* of over 50 per cent. On the other hand, among those who had been once vaccinated and had two good marks on the arm, there were only four deaths. Only seven had more than two good marks, and those seven had the mildest form of the disease, and made a rapid recovery. Only two cases were admitted during the past twelve months who had been *successfully revaccinated*, and in them the disease was so mild that they might have been permitted, except as a precautionary measure, to follow their ordinary avocations. And what conclusions would any sensible man make from these data? In the *unvaccinated*, the mortality was over 50 per cent.; among those who had been properly *vaccinated* in their infancy, but who had neglected to be revaccinated, there were only four deaths, while only 2 cases had been admitted where *revaccination* had been successfully performed, and they were of the mildest description."—*Montreal Gazette.*

MEDICO-CHIRURGICAL SOCIETY.—The fourth annual meeting of this Society was held in the Library of the Natural History Society on Friday evening Oct. 16th, 1874, when the following office-bearers were elected for the ensuing year: President, Dr. Reddy; 1st Vice-President, Dr. Craik; 2nd Vice-President, Dr. Godfrey; Secretary-Treasurer, Dr. Roddick (re-elected); Council, Drs. Scott, Fenwick and Gardner.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Observations on some of the Causes of Insanity. By GEO. A. BAYNES M.D.

In your December number of the CANADA MEDICAL AND SURGICAL JOURNAL, the article by Dr. Henry Howard on the increase of Insanity, truly calls, as you remark, for the most serious consideration from the great importance of the subject. Dr. Howard asks, "Can anything be done to stop the increase of Insanity and Imbecility," and as I candidly believe, that something may be done in more than one direction, that is not now even attempted, permit me to give your readers some thoughts that seem to be applicable to the subject.

The greatest benefit must arise from the education of the public to the now-avowed importance of the science of hygiene. We must have this taught in our schools and colleges, as holding a place in general education equal in importance to any subject at present taught. They must know that the great pre-requisite for a happy and useful life is "A sound mind in a sound body;" and as Montaigne says: "That those who separate the education of the mind from that of the body, do a great wrong."

The law of heredity is still a subject of controversy; but there are points npon which all biologists are agreed, viz: any particular characteristic, especially if it be of the nature of a deterioration or taint, when common to both

parents, is liable to be intensified in the offspring. It is on this account that marriages between blood relations are unadvisable, inasmuch as latent morbid tendencies, should they form part of the organic constitution of the family are almost certain to become developed in the children. It is almost patent in England, that the cause of the scrofulous tendency and insanity in the Royal family in the last generation was attributable to the continual alliance with their German relations. I think there is no doubt that consanguinity in marriage is a ground from which so much of our Insanity arises.

The causes of Deterioration and Disease may be classified according to Dr. Wilson, under two heads, viz., "Social" and "Material." The latter are to be treated by legislative enactments, so that we shall content ourselves for the present with the "Social" causes of Deterioration. The state is almost powerless to control these, although some little may be accomplished. But the greater part must be remedied by constant animadversion through the Press, the Pulpit and the Platform, as well as general instructions to family circles and schools by the Physician, the Minister and Journalist, or any other philanthropic person who will carry due weight with them. Intemperance, for instance, begins slowly and insidiously to undermine the general health of a man, and the habit becomes confirmed by an habitual and excessive use of alcoholic liquors. Its effects slowly develop themselves upon the digestion, then follows the impairment of the physical powers generally, then the nervous system is undermined, and nervous exhaustion ensues, evidenced by the tottering steps, the tremulous hand, and twitching of the muscles, and this followed by the mind and will becoming so enfeebled that they are powerless to resist the cravings of this morbid appetite and the drunkard becomes a veritable dipsomaniac, only fit for an asylum. But if these afflictions were to end here we might possibly satisfy our consciences with the knowledge

that he was injuring himself alone, and it was none of our business; but unfortunately the law of heredity comes in here with great force, and not only the craving for strong drink is transmitted, but the cunning and thieving propensities developed in the parent to obtain it, are intensified in the offspring, making him a bane to society. We also constantly find that the enfeebled mind of the drunkard who is deprived of his mental and moral powers of discrimination is developed in idiocy or some other form of insanity in his offspring. As a proof of this the statistics of the State of Massachusetts affirm, that of 300 idiots 145 were the children of intemperate parents.

M. Morel, than whom no greater authority can be quoted says, "I constantly find the sad victimsof the alcoholic intoxication of the parents in their favourite resorts,—the asylums for the insane, prisons and houses of correction."

Much might be added of the general criminal propensities, almost amounting to insanity, of the self made drunkard, as well as the congenital criminal, that would be of interest, but this will suffice for the present.

I can hardly agree with Dr· Howard in saying that we must let the marriage question rest, because it touches on so tender a point as Love, but rather use that very incentive to exert some influence in averting the consequences of injudicious marriages. So let us instill into our young men and women the evil results which must inevitably follow from marriages of this description, and seek to warn by their sad results, those who are blindly entering thereon. We must invite the Clergy to aid us, and work incessantly to achieve our object. For we not only have to work at the sad results of unsuitable marriages from the standpoint of Insanity, but the many other dire affections that are transmitted as a heritage to the incoming population, such as Phthisis and Tuberculous affections generally: including Scrofula, Cancer and many others which it is unnecessary to mention.

The mental affections, according to Dr. Burrows, reach a percentage of 84, due to hereditary influence.

Take, for instance, marriages of blood relations alone ;

M. Devay found out of 121 consanguine marriages that of the offspring 22 were sterile, 27 deformed and 2 deaf mutes.

Dr. Bemiss of Louisville investigated 34 marriages of this description with the following result: seven of the 34 were infertile. From the 27 fertile marriages 192 children were born ; of these 58 perished in infancy, or early life, of the 134 who reached maturity 46 appeared healthy, 32 deteriorated, 23 were scrofulous, 4 epileptic, 2 insane, 2 dumb, 2 blind, 4 imbecile, 2 deformed, 5 were albinos, 6 had defective vision, and 1 had chorea. The few remaining could not be traced,

The statistics of Dr. Howe, are still more appalling ; out of 95 children born of 17 marriages of consanguinity, 44 were found to be idiots, 12 scrofulous, 1 deaf, 1 a dwarf, and only 37 who enjoyed tolerable health.

Enough has been said to show the awful results of this discription of marriage, and add to them the marriage of persons who have a taint of disease, and we see that this subject alone touches the very foundation of a nation's prosperity and growth.

All these points must be made clear and plain, and become generally known, not only through our Medical press but by daily newspapers and other household periodicals. So that when we have drawn public attention to these matters, parents will see to the healthy marriage of their own children, by instilling into those of them who are at a marriageable age, the dire results of an injudicious connection.

Dr. Howard has so ably exposed the evils to our children of the present "high pressure" system of education that, to hear his arguments is to be convinced of their truth, the amelioration of the system, and an improvement in the present

order of teaching "the young idea" is most truly to be desired, and I believe will only be thoroughly effected when attention is first paid—not as to how far a boy has advanced to class him, but how far his mental powers can be fairly graded. That intellect can grow like any other of the organs of the human frame, we all allow, and that there is a kind of "pari passu" growth is equally clear, that a healthy development of the body in all its functions is a fair precursor for an equal mental growth, we may expect to find, as a rule, but it is not always so. I knew an instance of a man who as a child was perfectly healthy and strong, intelligent also, but he never spoke a word till he was five years old; he was examined several times, his parents being persuaded that some organic defect was the cause, when,however, he did begin to speak, in three months he was almost equal to any child of his age. The study of the mental capacity of a child should early engage the attention of a parent, nor should there be a hasty judgment as to the power of a child's abilities. In children of large physical growth mental development is sometimes tardy, and a lad who may have been thought dull and stupid as a boy, surpasses the expectations of his friends by an unexpected power to grasp and tenacity to retain what before he was dull of apprehension to master; the reverse is often found also, that those in whom the highest hopes are centred often fall behind, and are passed by the steady plodding student.

The late William Pitt was a remarkable instance of early mental power, his tutor, the then Bishop of Norwich, says that at the age of 12 he could read Greek plays with perfect facility, as if it was his native tongue. His early grave was the consequence of a mind that from his childhood was unnaturally premature, and ultimately wore out the frame that held it. It is a deeply interesting study to trace the gradual dawn of intelligence to the full capacity that the mind can reach, the period of life in which it is most vigor-

ous, the change that comes over it from the elasticity of its first strength to its maturity. The mental powers while they gain in one direction lose in another, the brightness of youthful and rapid apprehension at 22 is before that of 42, while the mature judgment of the latter is far in advance of the former. How much then depends on the cultivation of the mind from its earliest growth, how needful to watch its powers to give it just so much as by a healthy tension demands an advanced action, and avoiding that strain which rather enfeebles than improves its powers. If the exercise of reason in a child was as assiduously cultivated as charging its memory with what it does not understand, or its youthful mind can possibly grasp, far more satisfactory results would follow; and school would once more regain its primitive meaning when *Schola*, with its leisure, sport and games, was indeed remembered in after life as its happiest hours.

686 Dorchester Street.

Uterine Thermometry. Translated from Virchow's Archiv, Bd. lxii. *Hft.* 1.

In cases where the recognised diagnostic symptoms of the death of the child are absent or uncertain, Cohnstein, states that with the aid of the thermometer we are able to distinguish whether the child lives or not. He bases his assertion upon the fact that the temperature of the child in utero is higher than that of the mother in as much as the warmth communicated to it by the mother is supplemented by that produced by itself. In consequence of this independent development of warmth in the fœtus the temperature of the pregnant uterus is higher than that of the vagina. With the death of the child the temperature of the uterus must necessarily sink, because the production of warmth in the child ceases, and also because to the dead mass warmth is given up. If we mea-

sure, then, the proper temperature of the fœtus by the temperature of the uterus, and compare the obtained result with the temperature of the vagina, we can in this way diagnose whether the child lives or is dead. It is to be remarked that in the first measurements, only those cases in which the temperature of the uterus is found equal to, or lower than, that of the vagina would speak positively for the death of the child. Repeated measurements, then, would be necessary to establish the death of the fœtus, if the temperature of the uterus is found higher than the vagina; that is, immediately after the supposed death of the child. When the child dies its *own* warmth disappears; but the rapidity of the cooling process is not great, because the difference between the warmth of the child and that of the surrounding medium is not much. To this must be added the possibility of a post mortem elevation of temperature. We should only conclude in such a case that the child was dead, if, two or three hours after the first measurement, which showed an elevated temperature, a lowering of the uterine temperature was found. Many cases have proved to the author the correctness of his view, from which he quotes the following: 1.—Primipara; confinement expected on 15th June, onset of the labor delayed, movements of the child no longer plainly perceptible. Careful introduction of a previously warmed thermometer into the cavity of the uterus, between the wall and the membranes gave:

Temperature of the uterus, 38,7C.
" " vagina 38,3C.

Diagnosis: the child lives. On the 24th of June, the birth of a living child took place. The introduction of the thermometer had no injurious influence on the course of the pregnancy.

II.—Multipara. Head position, measurement six hours before the birth:

Temperature of uterus 38,1C.
" " vagina 38,1C.

Birth of a decomposed child :

III.—Primipara ; presented the known subjective symptoms which point to the death of the child. Heart sounds not distinctly heard. Head position. In the beginning of the first stage, before the water escaped :

Temperature of uterus 39,0C.
" " vagina 38,6C.

Repeated measurements after three hours :

Temperature of uterus 39,2C.
" " vagina 38,7C.

The diagnosis, that the child lived was confirmed.

IV.—Premature labor in the seventh month cervix uteri patent, and easily passable to thermometer.

Temperature of uterus 38,5C.
" " vagina 38,5C.

Birth of a decomposed fœtus 10 hours after measurement.

V.—At the end of the third month in this case, pains and metrorrhagia came on. Repetition of the bleeding in the 4th and 5th month. Measurement in the 5th month :

Temperature of the uterus 38,4C.
" " vagina 38,6C.

From these measurements, retention of a dead fœtus was diagnosed. The author states that the value of his method has been tested by Fehling of Leipzig, and held good in a series of eighteen cases, with the exception of two. In one of these cases the elevation of temperature with the dead fœtus depended upon a febrile condition of the patient, which had set in before or during the labour. Both authors met with cases in which the death of the fœtus was rendered probable from the statements of the woman, and the deficiency of the heart sounds, where the thermometer afforded an exceedingly delicate test.

The thermometer introduced into the uterus, serves not only for the differential diagnosis between the life and death of the fœtus, but also for the establishment of an ex-

isting pregnancy, and this on the grounds before given. True, it is maintained that no conclusion can be drawn from the higher temperature of the uterus in opposition to that of the vagina, because also in the non-pregnant condition, the uterine temperature exceeds the vaginal. This assertion is as weak as the proof is deficient. In experiments on guinea-pigs, the author found, using the delicate method of thermo-electricity, that in the non-pregnant condition hardly any difference was discoverable in uterine and vaginal temperatures; while, on the other hand, a marked and constant elevation of the uterine temperature was noted in pregnant animals.

The author admits that even in a non-pregnant condition of the uterus its temperature may be even 1, 5, C higher than that of the vagina. He has met with this in acute endometritis, metritis, para and perimetritis, and in excoriations and ulcers on the inner surface of the os uteri. On the other hand in Fibroma uteri, in ovarian tumour, and in enlargement of the belly by accumulation of fat, no increase in the uterine temperature can be detected. This negative evidence is of essential significance, because it relates to pathological conditions, which most easily are and have been confounded with pregnancy.

Should these conditions exist simultaneously with pregnancy the extraordinary difficulty of the diagnosis can be removed by the temperature measurements. It cannot be denied that the introduction of a thermometer, even for a few millimetres above the internal os, may prematurely interrupt the pregnancy. These cases, however, always form the exception, and do not outweigh the advantage of the thermometric investigation, if by the uncertainty of the ordinary symptoms of pregnancy a sure diagnosis seems necessary in the interests of the patient.

W. O.

HOSPITAL REPORTS.

Case of Double Aneurism—Cured by Carte's Compressors, after the failure of Flexion and Digital Compression. Under the care of Dr. FENWICK. Reported by Mr. S. J. Tunstall.

W, H., aged 57, was admitted into the Montreal General Hospital under the care of Dr. Fenwick, 1st October, suffering from Double Aneurism. Patient is a carpenter and joiner by trade, a well-nourished, powerful man, While serving his apprenticeship he had a great deal of heavy lifting, in placing bars, rafters, &c. ; but for the past twenty-one years his occupation, aithough requiring constant standing, has not been very laborious, He has had no severe strain, no unusual muscular exertion, has never suffered from Acute Rheumatism. He has been a hard and steady drinker for several years, but has always enjoyed excellent health. About the middle of June, 1874, he noticed for the first time an œdematous condition of the left leg ; then a swelling about the left knee, followed in a few days by stiffness and pain in the joint. The leg was most comfortable when semiflexed. and the pain became very severe when he attempted to straighten it. He at once applied for admission into Hospital ; while there, with rest and quiet, the swelling gradually disappeared ; no aneurism was made out. On the 8th of July he was discharged and returned to his employment, but found that after working a day or two, the pain and swelling returned and he was obliged to rest, For a whole month he continued working one day and resting the next. About the end of July he noticed a pulsation in the swelling, which increased so much that he was obliged to return to Hospital, where he came under the care of Dr. Roddick.

Upon examination, a large pulsating tumor was found in the left leg, involving the popliteal and the lower portion

of the femoral, situated immediately above the knee on the posterior and internal lateral aspects of the thigh, The following measurements were taken:—

Circumference of left leg around the most elevated part of the tumor . . . . . 17¾ inches

Circumference of right leg at the corresponding situation . . . . . 16¾ "

Digital compression was tried for eighteen hours, when the tumor was found to have become somewhat harder, but the pulsation still continued; while a small fusiform aneurism of the Popliteal in the other leg was distinctly made out. As there was not a sufficient number of students in town at the time to continue Digital Compression, it was determined to give Flexion a trial. A broad cotton belt with elastic sides, fitted with tapes and eyelets for lacing, and attached by straps to a waistband, to prevent it from slipping, was accordingly adjusted to support the limb in a flexed position, with as little fatigue to the muscles and discomfort to the patient as possible, It was found that flexion could not be kept up on one leg longer than twenty-four hours; it was, therefore, applied to the legs alternately. At the end of four days, the popliteal aneurism of the right leg was found to be a little smaller, while the femora popliteal of the left remained unchanged. A few days afterwards he left the Hospital and attempted to resume work. He was readmitted on the 1st of October, under the care of Dr. Fenwick. He has had no pain in the leg since flexion was tried. Pulse is slow and regular, and the heart sounds quite normal. The following measurements were taken:—

Circumference of left leg at summit of tumor			17	inches
"	"	centre "	18	"
"	"	base "	17⅛	"
Extent of pulsation felt; extreme breadth			10½	"
"	"	" length	5¾	"

The peculiar aneurismal pulsation is well marked, and

and the bruit very distinct. The edges of the tumor feel harder than they did in the summer, On the 17th of October, digital compression was commenced on the left leg and kept up by relays of students, who kindly volunteered their time and services. Hypodermic injections of morphia were administered freely, yet he suffered a great deal. At the end of 28 hours digital compression was discontinued, and the tumor was found to have become harder, especially around the edges, while the pulsation seemed to be more distant and the bruit less distinct. Encouraged by this evident improvement, Dr. Fenwick at once adjusted two of Carte's Compressors to the femoral above the aneurism, giving the patient instructions to apply them alternately himself. Improvement was now daily noticed; the tumor became gradually harder and harder. and the pulsations more and more indistinct, till on the 23rd, the bruit could be heard in two places only, one about 1½ inches and the other about 2½ inches above the internal condyle. On the 29th no pulsation or bruit could be detected; the tourniquets were accordingly removed, and a large firm tumor occupied the site of the aneurism. The patient was kept quietly in bed, and absorption of the tumor went gradually on. On the 5th of November the circumference was 27½ inches, and on the 8th it had decreased to 16⅝ inches. On the 24th of November two Carte's Compressors were applied to the femoral of the right leg, and were managed by the patient himself, as before. Consolidation went gradually on till, on the 15th of December the popliteal aneurism of the right leg was completely cured and the tourniquets removed. On the 19th the man was up and walking about, with neither pain nor swelling.

Case of Typhoid Fever. Severe Hæmorrhage from the Bowels.—Recovery under DR. WRIGHT.

Joseph Seale, æt. 21, admitted 12th November, a groom

(living with Mr. P. D. Browne above Sherbrooke street,) tall, well nourished, fair complexion. On admission he had all the usual initiatory symptoms characteristic of typhoid fever. He was ordered milk diet, with extra milk and corn starch and the following mixture:

R. Hydrarg. Bichlorid. gr. 1, Syr. Zingib. 4 oz., Aquae 6 oz. A teaspoonful every 4 hours.

Pulse and temperature as in chart.

The bowels acted four or five times in the twenty-four hours for the first few days after his admission. The tongue, which was at first heavily coated with red tip and edge, became gradually dry and brown. There was not much local tenderness over the abdomen or any distension, but few spots were discovered. The Biniodide of Mercury ointment was applied to the abdomen.

The diarrhœa continued four and five times in the 24 hours up to the 18th instant, when it increased to eight and and ten times in the twenty-four hours.

18*th*.—To-day also had some epistaxis, and on examining his chest the physical signs of bronchitis were found present. He was ordered, in addition to his other mixture, the following prescription:

R. Vin Ipecac. 2 dr., Ext. Seneg. fld 3 vi; Mist Camph. ad viii oz.; tablespoonful every three hours.

21*st*.—To-day he again had epistaxis, and he passed blood from the bowels for the first time.

He was given 6 oz. wine, and a pill containing Plum. Acet. gr. ii; Calomel gr 1-3, and pulv. opii. gr. ½ every three hours, and bran poultices were ordered to the abdomen.

22*nd*.—The hæmorrhage still continued, the bowels having acted four times since yesterday, with blood in each motion. An enema containing tr. opii. m xi, with four ounces of starch was ordered twice a day.

23*rd*.—Hæmorrhage still continues; ordered 4 oz. brandy in addition to his wine.

24*th*.—Hæmorrhage still; bowels opened three times since yesterday; extremely weak; low muttering delirium. Sleeps with eyes half opened.

25*th*.—Hæmorrhage arrested. Only one motion to-day, scanty, and of an ochre color. Eight ounces Wine and six ounces Brandy given; opium enemata stopped.

26*th*.—Bowels acted three times to-day; no blood.

28*th*—From this date he began slowly to improve: the bowels only acting twice a day.

He is still in hospital, and is gradually getting strong, though still confined to bed. His cough is gone, tongue cleaned, and bowels regular. He is very deaf though there is no otorrhœa. The stimulants have been reduced to two oz. Brandy in the 24 hours.

The Bichloride mixture has been stopped.

Case of Typhoid Fever; Severe Hæmorrhage from the Bowels; Recovery. Under DR. WRIGHT.

Robert McCletchey, groom (in employment of Dr. Reddy) was admitted into the Montreal General Hospital on the third October, 1874. He is 20 years of age, well nourished and healthy looking.

For about a week previous to his admission he had been complaining of headache and general malaise, but had endeavored to keep on with his work. On admission he complained of severe headache, his skin was hot, pulse frequent, and tongue heavily coated, with red tip and edges. Pupils dilated, and expression dull and heavy. Slight tenderness in the right iliac fossa. Bowels open three or four times in the twenty-four hours. Motions loose and light in colour.

He was ordered milk diet, with extra milk and corn starch, and the following mixture was given him:

R. Acid sulphurosi, 3 iv. Syrup 1 oz., Aquae ad viii oz., a tablespoonful every 4 hours.

Oct. 5th.—Bowels acted seven or eight times in the last twenty-four hours, and a camphor pill was therefore given him every 4 hours, and the biniodide of mercury ointment ii sc, to the oz. was ordered to be rubbed over abdomen. No spots discoverable.

7th.—His tongue has become dry and brown, there is low muttering delirium at night and the diarrhœa still continues.

9th.—Ordered him 4 oz. of wine to-day, and on examining his chest the physical signs of bronchitis were present, he was also given the following mixture:

R. Liq. Ammon. Acet. ii oz., Vin Ipecac. ½ oz. Ext. Sene. fld. iii dr. Mist. Camph. ad viii oz. Tablespoonful every 4 hours.

10th.—To-day, for the first time blood was discovered in the motions passed from the bowels, for this he was ordered the following pill:

R. Plumb, Acet. gr. ii., Calomel gr. 1-3. Pulv. Opii. gr. ½. every 3 hours, and a blister was applied over the right iliac region.

12th.—The hæmorrhage from the bowels continued; in the last 48 hours he had had 6 motions with a considerable quantity of blood in each.

He was ordered an enema, containing Tr. Opii. mxl. Mucilage amyli 4 oz..

13th.—There was no hæmorrhage from the bowels to-day. He seems extremely exhausted, however, face pale and pinched, subsultus tendinum; pulse very weak and dichrotous; tongue dry and glazed. He was ordered 6 oz. of wine to-day.

16th.—Last night had a return of the hæmorrhage. To-day poultices were ordered to abdomen. 4 oz., of Brandy ordered in addition to his wine, and the following mixture:

R. Beber Sulph. i sc., Acid Sulph. Co. ii dr. Spts. Eth. Sulph. Co. ii oz. Aqua 4 oz., tablespoonful every 4 hours.

The pills are still given every three hours.

18th.—Hæmorrhage from bowels arrested.

Is now taking 8 oz. wine, and 4 oz. Brandy in the 24 hours.

20*th*.—No return of the hæmorrhage, and diarrhœa less. On account of his extreme debility he was given the following powders ; R. Quinae Sulph. gr. iii., Pulv. Camphor grij. every 4 hours.

From this date he rallied and began gradually to improve, and though convalescence was slow, he steadily progressed.

He was not able to leave his bed until the second week in November, from which time he rapidly gained strength, and was discharged on the 30th.

Reviews and Notices of Books.

A Practical Treatise on the Diseases of Women, By T. Gaillard Thomas, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, &c., &c., &c. Fourth Edition, thoroughly revised, with one hundred and eighty-six illustrations on Wood. 8vo., pp. 801 ; Philadelphia, Henry C. Lea, 1874.

The general appreciation of this work by the profession is apparent, when it is stated that three large editions have been exhausted in little over four years. Stimulated by this favorable reception, the very able author has spent no pains in the revision, so as to make this, the fourth edition, a faithful exponent of the recent advances of gynecology. In his preface the author expresses the high gratification he has experienced at the cordial reception of his work, the former editions of which have been translated into German, and he announces that preparations are now on foot to render the present edition into French and Italian.

The work is divided into forty-eight chapters. The opening chapter gives a highly interesting historical sketch of the

subject of diseases peculiar to women. The author remarks that "a knowledge of what has been accomplished "in reference to any subject, and what was known con- "cerning it in previous ages, cannot fail to interest the "student and render him capable of appreciating recent "advances." In discussing the methods of examination the author gives preference to the use of Sims' speculum, and to the posture on the side instead of on the back. In the use of Sims' instrument the operator is forced to have an assistant, which is not always either convenient or attainable. Still, we fully concur with the author in his views with regard to this instrument, as we believe it to possess many advantages over the old cylinder or the various valvular specula now in use. It is certainly indispensable in all operative procedures. In speaking on this subject the author observes. "I have elsewhere called the results "of the labors of Récamier and Simpson eras in the pro- "gress of this department. I now venture so to style "those of Marion Sims. * * * Récamier marked "an era by improving our powers of diagnosis in exposing "the Cervix uteri; Simpson another, by opening to inves- "tigation the body of the uterus; and Sims a third, by render- "ing both investigations more simple, complete and satis- "factory." While admitting to the full the decided advantages of Sims' instrument, yet we do not think his invention can with justice be called an era in the history of the progress of this department, nor that the admitted advantages of this speculum to the practical gynecologist are to be compared with the beneficial results of the life-long labors of Récamier and Simpson.

The second chapter is devoted to the etiology of uterine diseases. In discussing this subject the author believes that the human female, if placed under favorable conditions, should in physical and mental development be in no great degree inferior to the male, and he maintains that the customs of, what is termed, civilized life have depreciated her

powers of endurance and capacity for resisting disease. The author bases his argument on what he has himself observed, and although he does not state that uterine disease is unknown amongst the class of the former slave population of the United States of America, he says when it is met with in that class it does not so profoundly affect the constitution, nor has it the direful consequences so frequently seen in the upper ranks of society. He remarks, "Those influences which, growing out of civilization and "refinement, tend most decidedly to produce uterine disorders, may thus be enumerated :—

"Neglect of out-door exercise.
"Excessive development of the nervous system,
"Improprieties of dress.
"Imprudence during menstruation.
"Imprudence after parturition.
"Prevention of conception and induction of abortion.
"Marriage with existing uterine disease."

Each one of these subjecrs is considered in its general bearing in the production of uterine disease, and in sum, ming up the author observes: "Neither appreciation of "nor desire for, physical excellence sufficiently exists "among the refined women of our day. Our young "women are too willing to be delicate, fragile and incapable "of endurance. They dread above all things the glow and "hue of health, the rotundity and beauty of masculinity, "the comely shape which the great masters gave to Venus "de Medici and Venus de Milo. All these attributes are "viewed as coarse and unladylike, and she is regarded as "most to be envied whose complexion wears the livery of "disease, whose muscular development is beyond the sus-"picion of *embonpoint*, and whose waist can be almost "spanned by her own hands. * * * These are "they who furnish employment for the gynecologist, and "who fill our homes with invalids and sufferers."

The next chapter is devoted to the diagnosis of the dis-

eases of the genital organs, and here we have touched upon the various rational signs which should always be first elicited before proceeding to a physical examination. In this connexion the author advises the use of an anæsthetic in cases where the investigation is attended with much pain, or in tonic spasm, or where we are forced to examine a virgin, in whom, from over-sensitiveness, a correct diagnosis would be impracticable without anæsthesia. In this chapter is described the various instruments used by the gynecologist to aid him in his inspection, such as the speculum, the uterine sound, tents of sponge and laminaria, the aspirator, &c. We next come to the more practical part of this valuable work. In chapters four to twelve are discussed the various diseases and injuries met with as affecting the vulva, vagina, and perineum, urinary and fecal fistulæ, and the various means adopted by the surgeon for their removal or cure. There is a chapter on rupture of the perineum, an accident of not unfrequent occurrence during parturition. The author classifies all cases under two heads: "Complete and partial rupture. These include "the following degrees of destruction:

"1st. Superficial rupture of the fourchette and perineum, "not involving the sphincters;

"2nd. Rupture to the sphincter ani;

"3rd. Rupture through the sphincter ani;

"4th. Rupture through the sphincter ani and involving "the recto-vaginal septum."

In discussing the treatment of these injuries by bringing the torn edges together with sutures, the author is decidedly in favor of immediate action. He remarks that the worst cases met with generally follow instrumental or manual delivery. After the birth of the child the mother is most likely in a profound anæsthetic sleep. Every practitioner should therefore be prepared to attempt repair of the injury by operative measures at once. If successful much suffering to the patient will be saved, and

if the attempt fails the patient is in no worse a condition. There are names of high eminence who condemn the practice of immediate operation in these cases, and in verity we have always regarded their teaching as erroneous; with all the disadvantages attending such injuries the, simple tying the legs of the patient together will, in some minor degrees of rupture be followed by kindly union, and on more than one occasion, when the rupture has been extensive we have proceeded at once to close the wound with the quilled suture, and success has always been the result. The directions given by Dr. Thomas are very practical, he furthermore advises that if failure should follow, no further attempt should be made until all the results of the parturition have entirely passed away.

We have an excellent chapter on vaginismus, a condition of over-sensitiveness of the ostium vaginæ, or, as our author terms it, hyperæsthesia in the nerves of the vaginal mucous membrane at the site of the hymen, which occasions spasmodic contractions of the sphincter vaginæ muscle, sufficient to resist any attempt at intercourse. This is a condition more frequently met with than is supposed. Dr. Sims was consulted seventeen times in well-marked cases in the space of two years. We have ourselves met with this condition frequently, and in some have attributed it to over-sensitiveness on the part of the husband, and have simply advised the employment of moderate force to secure his marital rights. In some of these instances success attended the endeavor; in others, however, signal failure followed, and other means had to be resorted to.

Chapters seven, eight and nine are on Vaginitis, atresia vaginæ and prolapsus vaginæ and vaginal herniæ. We next have a most important subject discussed in chapters ten and eleven, viz., Fistulæ of the female genital organs. This is perhaps the most distressing accident that can occur to the human female; fortunately, however, it is usually amenable to relief by operative measures. Specific directions are

given by our author for the performance of this operation, but the peculiar circumstances of each case, the extent of the injury and the size of the opening, will have to guide the surgeon in the method to be followed.

The author mentions four methods which are at our command for curing, or at least relieving a patient suffering from urinary fistula.

"1st. Cauterization; 2nd. Suture; 3rd. Elytroplasty; and 4th. Occlusion of the vagina or uterus."

The first method, our author states, has almost fallen into disuse. Malgaigne says it should never be employed except when the fistula is almost imperceptible, and even then Sims' operation is far preferable. In describing the operation by the suture some difference of opinion exists with regard to paring the vesical mucous membrane. While Simpson and Marion Sims caution the operator against wounding the mucous membrane of the bladder Simon of Heidelberg intentionally involves it in his incision, and the success attending Prof. Simon is remarkable; out of 105 patients operated on by him for vesico-vaginal fistula, he reports as cured, 92; almost so, 5; discharged as incurable, 2; died, 6.

The next seven chapters are devoted to the consideration of uterine pathology and treatment; then we have discussed the subject of uterine displacements in eight chapters. The author then considers periuterine cellulitis, pelvic peritonitis, pelvic abscess and hematocele; and subsequently takes up the consideration of fibromata, uterine polypi, sarcoma and cancer. Then follows disorders of menstruation such as dysmenorrhæa, menorrhagia, amenorrhæa, and after taking up the subject of amputation of the neck of the uterus, the author enters upon the discussion of diseases of the ovaries at chapter forty-three. We shall not follow on to the consideration of the operative measures, which are ably discussed in chapter forty-six, for already has this notice extended beyond the space allotted.

The statistical tables are very valuable; at page 729 will be found the remarkable results of ovariotomy in the hands of Spencer Wells, Clay, Marion Sims, Keith, the author himself and others. These are very encouraging to the surgeon. We have always thought, and believe that a small ovarian cyst can be removed with less risk to the life of the patient than one of enormous size. Why then delay? If our diagnosis amounts to anything, and that we are convinced that an ovarian cyst exists, we should have no hesitation in advising its early removal. In conclusion, we heartily commend this valuable treatise. The style is clear, pleasant and very readable. The publishers have done their part, and produced a volume in the highest degree artistic.

Periscopic Department.

SURGERY.

Clinical Lectures Delivered in the Middlesex Hospital. By J. W. HULKE, F.R.S.

ON A WOUND OF THE PALM.

GENTLEMEN,—In wounds of arteries attended with such hemorrhage as to require ligature, the aphorism so well expressed by the late Mr. Guthrie, and which he so ably illustrated—that "two ligatures are necessary, one on each end of the divided vessel, or one above and one below the wound should the artery not be divided,"—still remains and will remain the rule of practice, subject perhaps to the modification that some surgeons will prefer to completely sever a merely pricked artery, and to twist the discontinuous ends instead of to tie them.

You saw this done a short time ago in the case of a boy in Broderipp ward, who was brought to the hospital with a wound in the forearm made by a broken bottle. He had lost so much blood as to be blanched and nearly pulseless.

The skin wound was at the inner side of the forearm, making it most likely that the ulnar was the injured artery. In order to reach the bleeding vessel a tourniquet was placed on the brachialis and the wound enlarged. It was then found that the piece of glass had crossed in front of the ulnar artery without injuring it, and had nearly severed the radial. A wide gaping hole in it was plainly seen. A thread was placed around the vessel above, and another below this, and on removing the tourniquet the bleeding did not recur. He made a good recovery. In the following case you also saw the same practice adopted :—

A man was stabbed through his left cheek with a table-knife which made a skin-cut one inch and a half long, and passed slantingly downwards into his mouth, deeply notching his tongue. Blood ran so freely from his mouth and cheek that in a short time his clothes were drenched. Whilst an assistant temporarily lessened the bleeding by grasping the cheek between finger and thumb, and by compressing the facial artery against the lower jaw, the wound was enlarged, the severed facial found, and both its ends tied. The gaping notch in the tongue was closed by stitches placed deeply so as to compress the bleeding vessels. The bleeding did not recur ; the wounds healed quickly, particularly that of the tongue, and the man despite his large loss of blood, was quickly well.

Cases such as these might be almost indefinitely multiplied ; but there are others, fortunately of less frequent occurrence, where the practice so strongly insisted on by Guthrie cannot be adopted, and deligation of the feeding arterial trunk at a point between the wound and the heart is preferable. Under some circumstances, indeed, the surgeon has no choice but to do this. For instance, an artery opened by a wound or by ulceration may be quite inaccessible. Thus in the later stages of cancer of the tongue, where by extension of the disease to neighboring structures the lower jaw can be separated from the upper to only a

very slight extent, it is often quite impossible to find the bleeding point; and within my recollection in several cases there was no choice but to tie the common carotid. Again, an artery less deeply placed, and not absolutely inaccessible, may yet be so embedded amongst other important structures that an attempt to reach it where wounded may be more damaging than tying the trunk above the wound. Wounds of the palm very frequently exemplify this. The vessels are not large, and therefore are not conspicuous in the wound; they bleed very freely owing to their free anastomoses; the loose tissues about them soon become infiltrated with blood; and they are so bedded between the tendons that where the wound must be enlarged to find the bleeding vessel this can hardly be done without risking the integrity of the hand, and it becomes preferable to tie a main vessel above the wound; and here the choice lies between the radial and ulnar arteries above the wrist and the brachial artery. In the following case recently in Broderipp Ward the latter was selected:

A man, aged 28, on March 2, in corking a bottle broke it, and a splinter of glass was driven into the inner side of his right palm. The little stab bled so freely that by the time (only a few minutes after the accident) he reached the hospital his clothes were already drenched, and the blood had run down into his boots. The house-surgeon applied a graduated compress, which perfectly stopped the bleeding, and the man, who would not be persuaded to become an in-patient, went home. All went on well during five days, when on the morning of the seventh, on his way to the hospital to have the wound dressed, as he jumped off the footboard of an omnibus, a fresh and profuse hemorrhage began The house-surgeon now put a tourniquet around the arm, and cautiously enlarged the puncture in the palm in search of the wounded vessel. It could not be found. He therefore again methodically applied a graduated compress, and made the patient enter the hospital, which he previously

would not do. Three days after this, at 8 a.m., he coughed and felt directly blood running from his hand. He again lost a large quantity. The bleeding ceased when a tourniquet was put around his arm. The compress was removed, the wound cleared of a large clot, the cuticle around it which had become loosened was clipped away, but the wounded vessel would not bleed, nor could it be made to do so by violently kneading the hand and forearm, although the radial and ulnar arteries pulsated strongly.

This is a very frequent circumstance in wounds of arteries. They will not bleed when you want them, and in the absence of bleeding you often cannot tell the point whence the blood has come. Unwilling to tie an arterial trunk at a distance unless absolutely driven so to do, I again renewed the palmar compress, adopting the former precautions of carefully bandaging the fingers, hand, and forearm, and placing long, firm compresses upon the radial and ulnar arteries. The forearm was also flexed at an acute angle on the arm—a posture in which the acute flexion of the brachial artery at the elbow greatly lessens or quite obstructs its channel. Two days later (March 12) a fourth hemorrhage occurred. It was arrested as before, with a tourniquet, and when the wound was exposed again it would not bleed; it was clean, and not at all sloughy. He was now so weak that I was unwilling to expose him to the risk of a further loss; and therefore, in contravention of the rule not to tie an artery unless there is hæmorrhage actually at the time, I tied the brachial artery, adopting scrupulously the customary antiseptic precautions, and dressed the wound antiseptically. The vessel was secured with very little disturbance of the parts around it. The whole arm, forearm, and hand were now fixed upon a well-padded splint in order to insure perfect rest. The palmar wound was also covered with a light carbolised dressing. An abscess now formed here, and pointed at the root of the ring finger. On the 14th, about forty-eight hours after deligation, the wound

in the arm was found to be suppurating; the pus was very fetid, though the antiseptic dressing had not been disturbed. The incision was washed out with a solution of carbolic acid and again antiseptically dressed. Not till the fifth day could pulsation be felt in the radial and ulnar arteries above the wrist. Meanwhile a little fleshy-looking button rose up in the portion over the interspace between the third and fourth metacarpal, and two days later (March 19) it visibly pulsated—it was manifestly a miniature false aneurism. The day after, when the dressings were being changed, it broke, and blood spurted from it in a stream out of all proportion to the size of the little tumour. This was snipped open, and a thread placed above and below it on the small artery from which it arose. From this time there was no further cause for anxiety respecting the palm. The incision on the arm healed slowly; a sinus persisted obstinately over the point where the brachialis had been tied; and I often regretted that I had used a carbolised gut thread and cut it short instead of the old hempen ligature. The wound did not finally close till the middle of April, and even then much hardness remained.

This case, gentlemen, is an example of what too commonly happens in wounds of arteries in this situation. The wound is more often a puncture with a chisel or penknife, or some such small tool, than a gash. It bleeds furiously; the vessel cannot be seen; a compress is applied (often with greater tightness than necessary, and without the precaution of methodically bandaging the fingers and hand, and without securing their perfect immobility with a suitable splint); the bleeding at once ceases. The patient and the surgeon congratulate one another on the good progress of the case. Then, after a few days, blood bursts out, and the palm becomes swollen and infiltrated. The chances of now finding the vessel by enlarging the wound are greatly lessened, and the recurrence of hæmorrhage calls for ligature of the ulnar and radial artery (for it is seldom

that ligature of one alone suffices; it has never been enough within my personal observation), or deligation of the brachial if preferred. In my early professional life, I several times saw my old teacher, the late Professor R. Partridge, tie the brachialis successfully for palmar wounds, and I adopted this practice myself three times with a favourable termination. Later I was led to prefer ligature of both ulnar and radial arteries just above the wrist, and the result in two cases was equally favourable, although, in consequence of extension of cellulitis from the hand into the forearm, the local conditions were less promising; and now I find myself going back to my first practice. After both, I have seen, as here, occasionally a renewal of the bleeding, but it has been much moderated; and, happily, I have not yet found it difficult to deal with, though the larger experience of others forbids me to believe that this will be always the case.—*Medical Times and Gazette,*

Royal Medical and Chirurgical Society. C. J. B. WILLIAMS, M. D., F. R. S., President, in the Chair. Tuesday, November 24.

CASES OF SYPHILITIC REINFECTION, WITH REMARKS.

Mr. George G. Gascoyen read a paper on this subject, in which he gave the details of eleven cases of syphilitic reinfection which had passed under his observation, and seven of which he had himself treated in both attacks. Ten of them had previously had general syphilis, and in six of these constitutional symptoms again manifested themselves, while in the other four an indurated chancre only was the evidence of a second contamination. The remaining case was one of well-marked indurated chancre, with inguinal adenopathy for the first disease, but the reinfection showed itself as an indurated chancre followed by tertiary lesions without the intervention of any of the secondary affections. The importance of these cases was

dwelt upon as evidence that the diathesis created by syphilis may completely wear out and leave the individual free from all trace of his former attack, so that he may become the parent of healthy offspring, and also liable to contract again the disease if exposed to contagion. That examples of syphilitic reinfection cannot be so rare as is commonly supposed was proved by a table appended, in which sixty cases had been collected from various sources; and as in most of them, as well as in those which formed the subject of this communication, a full mercurial treatment had been employed, they were considered to afford strong testimony to the value of the drug, not only as a remedial, but actually as a curative agent in this disease. The author endeavored to show from these cases what is the real meaning of the induration which commonly accompanies an infecting chancre. He did not regard it as one of the strictly local processes attendant upon, or essential to, the development of such a sore, but as the first of the so-called secondry symptoms—the earliest expression of a constitutional contamination,—which usually manifests itsely at the point of inoculation, and which is as pathognomonic of a general taint as any of the affections admitted to be secondry. In most of the cases related the sore followed at once upon intercourse, and it was urged that a period ol incubation is by no means necessary to the evolution of an indurated chancre. Much difference of opinion existed on this point, and the author considered that the presence or absence of incubation is determined by the nature of the lesion from whence the chancre has been derived, whether from an infecting sore which is still suppurating and in full local activity, or whether from an indurated chancre which has become indolent and ceased to form pus, or from some other constitutional affection. In the former case, which was regarded as an example of primary syphilitic inoculation, no incubation preceded the pustular origin of the chancre;

but in the later, which constituted an example of secondary syphilitic inoculation, a period of inculation always preceded the papular development oi the resulting sore. And as the phenomena which have been observed to follow the inoculation of an indurated sore were precisely the same as those which attend the successful inoculation of mucous tubercles or of syhilitic blood in a person previously healthy, this fact was donsidered to afford an additional reason for placing a non-suppurating indurated chancre in the category of secondary syphilitic accidents. Some of these cases of reinfection threw light upon the position which the more remote lesions following upon syphilis really occupy with regard to the disease. Six of the cases rcorded (one of the present series and five given in the table) occurred in persons suffering at the same time from tertiary syphilis; and it was sought from this circumstances to show that some of the more advanced symptoms must be the sequelæ of a past, and not the manifestations of a still existent disease. For since it was impossible to believe that two distinct attacks of general syphilis can take place in the same individual at the same time, these later manifestations, characterixed by cachexia, ulcerations, etc., due to the injury inflieted upon the economy by a previous disease; and the fact that a fresh infection can take place under such eircumstances would seem to be convincing proof of the accuracy of such an assumption.

Mr. Henry Lee regarded Mr. Gascoyen's paper as a highly valuable one. His own experience entirely agreed with what Mr. Gascoyen had stated as to the reinoculability of syphilis on a person who had already had the disease. He was rather surprised to hear that there were so few cases in English literature. He thought that he had published two cases were reinfection had occurred. In cases of reinfection, the character of the sore differed from that produced in a previously healthy subject; it was small, and ran through its conrse quickly. The period of incuba-

tion was not so long as in an original sore; and glands were not so definitely enlarged, and suppuration occurred. The secondary symptoms after reinfection were of the same character as those following original infection, but were milder, and yielded more readily to treatment. He could not draw a distinct line at the period at which a person having had syphilis could be said to be free from the disease; the passing off of the influence took place gradually, like, for instance, that of vaccination. He had treated a patient for syphilis, followed by slight secondary eruption, and who, seventeen years afterwards, was reinfected. On the second occasion there was a small pimple, with enlarged and suppurating glands, followed lately by the development of well-defined copper-colored blotches. He had also seen a case where there was general enlargement and suppuration of the glands, and which was probably one of reinfection. According to Mr. Gascoyen, induration was essentially a constitutional symptom; hence, if there were no induration, there was no constitutional affection. The results of inoculation after reinfection did not seem to be the same as those of inoculation from a soft sore. He had lately seen some inoculations by Mr. Morgan, of Dublin, in which the cicatrix was raised rather than depressed.

Mr. Acton said that there was no doubt that reinfection could take place; but he could not understand that this occurred so often as was stated. He had not seen more than ten or eleven cases. He was often called to cases of supposed reinfection; but hardness, not necessarily the result of reinfection, might come on in the site of a primary sore years after the first infection. He had met with a case where a man, supposed to have recovered from syphilis for ten years, again presented symptoms of the disease. Such a case, according to Mr. Gascoyen, if induration were present, would be regarded as one of reinfection. It was an important practical observation, that in cases of reinfection the secondary symptoms were recovered from almost

with the mere use of tonics, without mercury. With regard to inoculation from secondary syphilis, he thought that it was a question of great difficulty. Persons having secondry symptoms cohabited for months without producing infection. He had seen attempts made to inoculate secondary syphilis; but the process was a difficult one. It was said that it was very easy to prove that reinfection occurred frequently. Was he to understand that, in order to prove this, surgeons had undertaken the responsibility of inoculating healthy persons? Unless this were done there was a want of data that could be depended on.

Dr. Drysdale had been long on the look-out for cases of reinfection; but he had only met with one case, in which a gentleman, who had a primary sore followed by sore throat and eruption in 1862, having recovered, was reinfected in 1870. He did not think that induration was a sufficient sign for reinfection; for tertiary induration might be mistaken for that of a primary sore, and he believed that many authors had probably made this mistake. He did not agree with Mr. Hutchinson's view that the tertiary symptoms were not really syphilitic. He thought that, to prove that two attacks of syphilis had occurred in the same person, it was necessary to show that there had been roseola on both occasions. Such writings as those of Mr. Gascoyen tended to shake the dualistic theory of syphilis, which he believed correct. He would ask Mr. Gascoyen whether syphilitic men ever begot syphilitic children without first infecting the mother. Inoculation from secondary manifestations had always resulted in syphilis. Infection had in some cases taken place by the mouth. Prostitutes must sometimes infect by secondary symptoms; it was scarcely possible that there could be sufficient primary syphilis among them to account for all ths cases of infection.

Dr. Thin said that the influence of iodide of potassium in tertiary syphilis indicated that it was not merely due to the wearing down of the coustitution.

Mr. Trotter said that his experience in a regiment for twenty years confirmed the existence of reinfection. It had several times occurred that a man had a hard chancre, and recovered under treatment; and that, after remaining well for five, six or seven years, he became reinfected. In the interval he had been examined at the regular inspections, so that any sign of disease would have been detected. He was rather surprised that so few cases of the kind were recorded.

Mr. Myers had for fifteen years looked on reinfection as of common occurrence. He had also noticed cases where, after the healing of an indurated sore, induration was again produced by some irritation, without true infection; in one case this had occurred three times. He regarded induration as local rather than constitutional.

Mr. Gascoyen replied.

—*Medical Times and Gazette.*

Saccharated Calomel contains Corrosive Sublimate.

Dr. Polk, of Philadelphia, in the *Medical Times* calls attention to the fact that corrosive sublimate is developed when calomel is rubbed up with sugar. He administered ten grains a month after its preparation, with such poisonous effects as led him to test the compound, with the result as stated. He quotes from Vulpius, who says: "When calomel is mixed in powder with white sugar, or calcined magnesia, or bi-carbonate of soda, corrosive sublimate is formed in twenty-four hours. Rather large quantities are formed in powders composed of calomel, white sugar, and bi-carbonate of soda." We believe it is the general opinion among practitioners that the increased activity of the saccharated calomel, which, by the way, is an old remedy, depends on the increase of surface caused by its diffusion. But the development of the chloride puts a serious face on the matter.—*The Doctor.*

MEDICINE.

On the Treatment of Tapeworm, with Illustrative Cases.

By T. SPENCER COBBOLD, M.D., F.R.S., F·L.S., Lecturer on Parasitic Diseases at the Middlesex Hospital Medical College.

To any experimenter more or less frequently occupied with researches which have for their ultimate aim the practical advancement of the healing art, few circumstances are more calculated to afford discouragement than the apparent resultlessness of his labors. For a brief space of time the investigator may flatter himself that his discoveries or verifications, as the case may be, cannot fail to be immediately productive of benefit alike to his professional brethren and the public, but sooner or later he is sure to find out that his scientific enthusiasm has rendered him the victim of a very natural delusion.

If, to the essentially practical remarks that are to follow I prefix a statement of this nature, I do so partly in order that I may independently, and from recently gathered experiences, afford striking confirmation of its truth, and partly because I think such a statement inferentially offers an adequate apology for again recurring to a subject respecting which so many medical men fondly and, they must pardon me for saying it, erroneously, imagine that nothing more need be said.

Already in the pages of *The Lancet* for the current year (vol. i., 793), I have given a brief analysis of the experiences and results gathered from eighty consecutive and unselected cases of tapeworm occurring in private practice, and I have elsewhere offered an explicit statement of the principles which should guide us in the management of such cases. Now, considering that all of the patients concerned in these as well as in other cases that have come under my professional care had previously undergone treatment, I deem it not unfair to ask such a question as

the following :—" If the successful treatment of tapeworm be so simple a matter as some persons seem to think, how does it happen that many patients undergo years of drugging without being permanently cured?" Of course the answer is to the effect that the head of the worm had not been dislodged in any instance, and therefore the parasite continued to grow until it again arrived at maturity. Precisely so. I have admitted all along that there are cases of difficulty, particularly in the treatment of the armed pork-tapeworm, but it is just these obstinate cases which demonstrate the necessity for special knowledge and tact in their management.

Again, as affording proof of the truth of my opening statement, let any one not unfamiliar with our recent advances in experimental helminthology take the trouble to read the discussion on the treatment of tapeworm which took place at a meeting of the Société Thérapeutique on the 10th of June last. (*Bullet. Gén. de Thér.*) From a scientific point of view, the want of knowledge exhibited by several of the speakers is altogether lamentable. Thus, for example, one gentleman (M. Trasbot) actually asserts, or is represented as asserting, that the flesh of the ox " does not contain cysticerci," although for many years past we have recognized beef to be the most frequent source of tapeworm both in this and in several other countries. I may also state, for M. Trasbot's edification, that for many years past I have been in the habit of exhibiting beef and veal measles to scores of students and other persons interested in the matter. Not only so ; the experimental proof of the possibility of the occurrence of cysticerci in beef and veal dates back as far as the year 1861 (Leuckart *Die Meusch., Par.*. s. 406), whilst Mosler's limited experiences were announced shortly afterwards. My own much more extended verifications were first made known in *The Lancet* of Feb. 25th, 1865 ; being repeated in a more complete and emphatic manner in the same journal

during the following August. Subsequently, in the Pathological Society's Transactions and elsewhere (1866) further confirmatory researches were made public, some of these throwing light upon subsidiary questions in helminthology. Quite recently a French experimenter has at length accomplished a similar result. Professor St. Cyr, however, (like M. Trasbot) appears to have been totally unaware of the fact of the German and English experiments, although they were conducted ten or more years previously to his own. This evidence of defective information on the part of those who ought to have known better is, I repeat, exceedingly discouraging; and I wish I could bring myself to believe that such deficiencies were exclusively the prerogative of therapeutists and professional men on the other side of the Channel. Certainly, it ought to be generally known that the representative of helminthology in Paris, M. Davaine, cannot be held to blame on this score, since, in his recent article on the Cestodes in the *Dictionnaire Encyclopédique des Sciences Médicales*, he has given an admirable summary of Leuckart's and Mosler's researches, as well as of the experiments conducted by myself, with Professor Simond's co-operation, at the Royal Veterinary College.

Altogether ignoring, or at least failing to recognize, the practical value of these researches, it would appear that the method of treating tapeworm on the continent—as expounded by the members of the Society above referred to—is still made a matter either of mere drugging or of a mere choice of drugs. Thus one gives pumpkin-seeds, another pomegranate root-bark, a third male fern, a fourth kousso, and so on, *ad nauseam* in more senses than one. It is to be feared that a similar state of things prevails at home. In England turpentine is still perhaps the most popular remedy, at least in country districts. Unquestionably all these particular remedial agents have their value, some being more particularly useful than others. As to the amount of intellectual capacity requisite for the due

administration of either the one or the other, perhaps the less said about that the better. Certainly nothing effective can be done without drugs, and, whatever credit may be accorded to any medical practitioner, on the score of selection, the pharmaceutists ought, in my judgment, to receive the first thanks. With infinite care and trouble they have succeeded in giving us some very choice and convenient preparations, and I do not think they have received that share of the credit which is their due in this respect. But, I repeat, the successful treatment of tapeworm is not a mere matter of the choice of anthelmintics, neither is it necessarily dependent upon the degree of drugging. The pharmaceutists have executed their part of the business. so to speak, almost faultlessly ; but the practitioner's functions have for the most part been conducted in an incomplete manner, and therefore inefficiently to a greater extent than would otherwise have been the case. Without doubt, it would be unjust to maintain that perfect cures of tapeworm were rare ; nevertheless, I have before me absolute proof that, under the measures commonly employed, these cures are neither so frequent nor as rapid as they ought to be.

In my publication of the Lectures on Helminthology, delivered at the Medical College above mentioned, I have recorded upwards of forty cases of tapeworm. They were purposely unselected cases, in order to illustrate, not merely the comparative value of particular remedies, but also more particularly those points in the diagnosis, prognosis, and symptomatology which every physician ought to be familiar with. As in the present communication, I am chiefly concerned with the results of treatment (and especially as I have elsewhere, without the slightest reservation, and with little thanks from those I had hoped to assist, frankly pointed out the nature of the steps which I think all who have the management of such cases should adopt), I shall reduce my notes of these illustrative cases to the lowest possible limits. Some of the cases are simple enough, whilst others presented difficulties of their own.

CASE I.—L. E——, a little girl, only two years and three months of age, was placed under my care during the month of February of the present year, there being evidence to show that she had contracted tapeworm about nine months previously. She had been treated with fifteen-drop doses of the male-fern extract, on alternate days, for a period of several weeks during the previous autumn. She was alarmingly ill at the close of that period; and the treatment being for a time discontinued, the medical gentleman under whose care she had been thus far was unselfish enough to hand over the case to my care. The treatment had so far succeeded as to have expelled "several yards" of the worm. The parents were naturally very anxious; and therefore without stint they, like sensible people, afforded me every facility for bringing the case to a successful issue. I do not know that I have ever had to deal with a case of tapeworm presenting such peculiar difficulties. Not merely was it essential to avoid the exhibition of any remedy which could exert a drastic or lowering action on the system, but it was equally important that the parasite should be dislodged, head and all. The stupid plan of starvation so much in vogue abroad, as a preliminary step, was also obviously contra-indicated. In short, I was bound to proceed more cautiously. Accordingly, I recommended that the child should be treated in the country, and not in town, as I wanted her general health to be improved and maintained in comparative vigor. The diet and exercise were regulated. Gentle aperients were taken, the vermifuges commenced with being very small doses of kamala in the first instance and areca nut-powder afterwards; subsequently these were combined with advantage. And thus, without the slightest ill effect upon the child, a considerable part of the body of the worm was dislodged. Still, however, the upper part of the body, the neck, and the head had to be obtained. After a time I felt sure that a small dose of male fern could be borne, and therefore prescribed fifteen minims

of the extract, which had the effect of dislodging all except the head and a few of the upper neck segments. Confident that a second dose could be borne, after a brief interval this also was given, without any untoward result ; and, on the 2nd of March I made my final fæcal exploration. This search was continued for one hour and twenty minutes, at the expiration of which time I succeeded in finding the *head*, which had scarcely any portion of neck attached. Curiously enough, also, this head displayed certain morphological peculiarities which I have not found to obtain in any other heads of the beef tapeworm (Tænia mediocanellata.) Its form was less truncated, the first neck-segment being as well pronounced as any of the immediately succeeding ones.

The lessons to be deduced from this case are important In the first place, it shows that success is not unattainable even in instances where the youngest children are afflicted with tapeworms. In the next place, it shows that there are examples of the disorder where it is better to proceed cautiously than to give the largest doses the patient can bear at once. Further, it shows that the male fern may be administered every other day for weeks in succession without bringing away the *head* of the parasite, and that the employment of this powerful drug may give rise to alarm, if not on the part of the practitioner, at all events to the patient's friends. It likewise shows that personal investigation of the fæces affords (to anyone familiar with the facts of tapeworm development and appearances) a true indication of the proper extent to which the treatment has been pushed. Thus, whilst many practitioners would have been contented to have discharged the case when they had learned that the entire body of the worm, or "several yards," had been dislodged, I, on the other hand, felt sure that the almost perfectly isolated head remained behind, and that a second dose of the extract could be borne without ill results to the patient. Had I been content to have

let the matter rest, the still attached head would undoubtedly have grown again, and some third person might have been entrusted with the case. We have seen, I repeat, that the very same drug, in doses just as large as those I eventually administered, proved ineffectual though continued for a lengthened period, the body of the parasite being dislodged, but not the *head*. Now, supposing the head had been expelled, since no special investigation was conducted with the view of ascertaining that fact, it is obvious that it would not have been known when the head actually made its escape ; and thus, as often happens, the treatment would have been needlessly continued for a greater or less length of time. Patients have come to me who have been thus roughly handled for several years after the head of the tapeworm had been dislodged. In this case the treatment was not continued longer than was absolutely necessary. Some may contend that this accurate knowledge of the facts of these cases, whether negative or positive, is of no importance. I beg very respectfully to differ from these individuals some of whom have been pleased to favor me with probably the most discourteous anonymous communications that any honest laborer in the cause of practical science ever received. At the risk of receiving further discourtesy from a few eccentric individuals, I do not hesitate again to say that, to go on persistently drugging in total ignorance as to whether the head of the tapeworm is present or not, is, in my humble opinion, a slovenly mode of procedure ; and even in instances where you do happen to know that the head actually remains intact, it is sometimes advisable to defer anthelmintic treatment. I hope in the sequel to explain this more fully. In the present case, I was certainly particularly fortunate in securing the co-operation of an unusually intelligent nurse, and thus not a single loose proglottid escaped per anum without subsequently undergoing the necessary scrutiny.

At why scrutinize them at all? some unfriendly

hypercritic will say. To persons possessing such ill-adjusted mental processes I know it is useless to make reply. There are others, however, who set a different value on the lessons to be gathered from experience. Let me say, therefore, that it is within my personal knowledge that scores of different foreign bodies have been mistaken by unexperienced persons, both professional and otherwise, either for portions of the body of the tapeworm or for the head itself. I am constantly receiving such productions from medical friends for indentification or determination. All sorts of delusions afflict patients also in this respect; thus at the present moment I have under my care a gentleman who is persuaded he has seen the head of one worm which infested him, although the head is described as being larger than the sexually mature proglottid itself! Other patients have repeatedly, during my examinations, flattered themselves that they could pick out the head of the worm, but, with one exception, they abandoned the search in sheer weariness and disgust at their fruitless attempts.—*The Lancet.*

EXTIRPATION OF THE LARYNX.

This formidable operation was performed by Professor Billroth of Vienna, for the second time, on the 11th of November last. The patient was a man aged 50 who was under the charge of Dr. Schroeter the teacher of laryngoscopy at the Allgemein Krankenhaus. The laryngoscope revealed a nodulated growth, situated on the left vocal cord and implicating the mucous membrane. It was diagnosed to be epithelioma; it made very rapid progress, and soon engaged the whole interior of the larynx. The dyspnœa becoming urgent, the patient was transferred to Professor Billroth. That gentleman pronounced a favorable prognosis, in respect to the return of this disease, as there was no infiltration of the lymphatic glands in the neighborhood. He determined to remove the entire larynx, which

operation he performed in the presence of a large number of medical men and students. The patient progressed favorably for the first three days, when a change occurred, and he died on the night of the 16th, apparently from pneumonia. A microscopic examination of the growth confirmed the accuracy of the diagnosis.

Trichinæ in American Pork.

We are not aware whether the importation of hams from America into this country is large, but it appears probable, from the number sent over to Germany, that the English market must also receive a share. It ought therefore to be known that their use is not absolutely unattended with risk, and more especially in the case of hams which are cured with the residue of the cane sugar manufacture. Five per cent. of the latter kind, according to Dr. Roper (*German Quarterly Journal of Public Health*), who has carefully examined the subject, are infested with trichina spiralis. Only 3 per cent. of the hams cured in the ordinary way contain trichinæ. The reason why so many hams are thus diseased is probably due to the circumstance that in the place where the pigs were slaughtered the living pigs are fed with the offal of the dead ones, part of which were affected with trichinæ; the consequence must be a steady increase in the number of infected animals. Roper, after a careful microscopic examination of the trichinæ from American hams, is positive that they are identical with those that have given rise to disease in Germany, the American opinion being that they are of a different and harmless species. He way, however, not been able to convince himself, either by microscopic examination or by feeding animals with the diseased flesh, that the American trichinaæ retain their vitality when they reach Europe. An epidemic of trichinosis which occurred at Bremen, in which more than twenty persons suffered after eating American pork, is, however, a sufficient proof that its use is not entirely free from danger. —*Medical Times and Gazette.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1875.

IS THE MONTREAL GENERAL HOSPITAL A PROTESTANT INSTITUTION?

We have always maintained that the Montreal General Hospital is, in principle, non-sectarian. If any person is desirous of further information on this subject, let the published annual reports of the hospital be consulted.

Some time last spring a deputation of three gentlemen representing the corporation of the Montreal General Hospital waited upon the Premier of the Government of Quebec, with a view of obtaining, if possible, for hospital purposes only, a site of land known as Selby Grange. This property had been donated to the Government of Canada, specially for charitable purposes; and, at the time of the change to the present system of government, was handed over to the Local Legislature of the Province of Quebec. The desirability of this site was pointed out by the deputation, and in view of the rapid increase in the size of this city, the necessity for increased hospital accommodation was represented. Objections were raised on the part of the Government, the most prominent being, that inasmuch as the Montreal General Hospital was a Protestant institution, the Government did not feel disposed to make a grant of public land for its benefit without a like grant being given to the Roman Catholic Hospital. This appears on the face a perfectly equitable decision, but without wishing in any way to interfere with any prospective benefit to be granted

by our Local Legislature to the Roman Catholic institution, we will simply observe that the Montreal General Hospital is, in principle and management, non-sectarian. This institution, for the past fifty-three years, has performed its work of benevolence without reference to creed or country; and furthermore, although it is a City Hospital, supported by the voluntary contributions of the citizens of all creeds and countries, nevertheless in many instances its benefits are extended to persons coming from all parts, of Canada and the neighbouring States, as well as to immigrants and sailors.

In these days of bitter sectarian strife it would be a crime to rob this institution of its peculiar feature. The dispensing of charity to the sick and relief to the maimed should not partake of sectarian littleness.—Our Blessed Lord, in the suggestive parable of the Good Samaritan, which He addressed to the sectarians amongst the Jews of His day, teaches a lesson of love and benevolence to all men. This lesson can with advantage be learnt and put in practice by all, be they Christians or unbelievers. It is just this true spirit of Christian benevolence which has ever guided the management of the Montreal General Hospital. In support of our argument we will give a synopsis of the published annual reports of the Montreal General Hospital for the past ten years:

In 1865:		
There were admitted into the house.....		1278
Of these there were:		
Roman Catholics.....	634	
Protestants.....	644	
Of out-door patients treated during the year.....		7294
Of these there were:		
Roman Catholics.....	5699	
Protestants.....	1595	
In 1866:		
Admitted into the house.....		1117
Roman Catholics.....	550	
Protestants.....	567	
Of out-door patients treated during the year.....		7187
Roman Catholics.....	5640	
Protestants.....	1547	

In 1867 :

Admitted into the house..... 1223
Roman Catholics..... 553
Protestants..... 670
Of out-door patients treated during the year..... 7621
Roman Catholics..... 5843
Protestants..... 1778

In 1868 :

Admitted into the house..... 1313
Roman Catholics..... 638
Protestants..... 675
Of out-door patients treated during the year..... 8419
Roman Catholics..... 6717
Protestants..... 1702

In 1869 :

Admitted into the house..... 1406
Roman Catholics..... 648
Protestants..... 758
Of out-door patients treated during the year.....10,192
Roman Catholics..... 7845
Protestants..... 2347

In 1870 :

Admitted into the house..... 1281
Roman Catholics..... 636
Protestants..... 645
Of out-door patients treated during the year.....11,913
Roman Catholics..... 9830
Protestants..... 2083

In 1871 :

Admitted into the house..... 1,449
Roman Catholics..... 652
Protestants..... 797
Of out-door patients treated during the year.....11,346
Roman Catholics..... 8,860
Protestants..... 2,486

In 1872 :

Admitted into the house..... 1,479
Roman Catholics..... 669
Protestants..... 810
Of out-door patients treated during the year.....11,116
Roman Catholics..... 8,647
Protestants..... 1,469

In 1873 :

Admitted into the house..... 1,714
Roman Catholics..... 743
Protestants..... 971
Of out-door patients treated during the year.....11,349
Roman Catholics..... 8,882
Protestants..... 2,467

In 1874:

Admitted into the house	1,781
Roman Catholics	827
Protestants	954
Of out-door patients treated during the year	13,137
Roman Catholics	10,603
Protestants	2,534

In publishing these statistics our sole desire is to show that the Montreal General Hospital is neither a Roman Catholic nor a Protestant Hospital. We firmly believe that the best interests of the institution would seriously suffer if its management partook of sectarianism of any kind. Nor do we wish it to be supposed, that in giving publicity to this statement, we desire to curtail one inch of ground that the Government of this Province deem advisable to give to the Roman Catholic Hospital. Still, we maintain that in giving aid towards this charity the Government will not be giving support to a Protestant Institution. It cannot be denied that the larger number of the governing body of the Montreal General Hospital belong to some Protestant denomination, but it must be stated that a large number of Roman Catholics give of their substance annually towards its support.

By reference to the statistics above quoted, it will be noticed that during the past ten years there have been treated in the aggregate 85,116 Roman Catholics against 28,499 Protestants. And if the reports are more closely scrutinized it will be seen that the patients are made up of natives from every country in Europe, as also from many of the countries of Asia, Africa and America.

THE MONTREAL GENERAL HOSPITAL.

Eight years ago, in the pages of the CANADA MEDICAL JOURNAL appeared an editorial on the subject of the removal of the Montreal General Hospital from its present site to one further west. Furthermore, we advised the Governors of the institution of that day to acquire property in the vicinity of the plateau overhanging the Tan-

neries village, of sufficient extent to enable them to put up a series of buildings after the style of some of the modern hospitals in other countries. Mr. William Molson about that time had presented the institution with a sum of $5,000, specially intended to aid in the erection of a fever hospital. In alluding to the building of a fever hospital, we remarked "that while fully alive to the necessity of an institution with the above object, we must be permitted to call in question the propriety of building a fever hospital on the ground at present owned by the institution." We did our best to oppose the erection of the fever hospital on its present site, and the results have fully borne out the note of warning which we at that day sounded.

In providing charities of this nature for the poor or the man with limited means, it is not alone sufficient to give him a place where he can have his bed, board and medical or surgical relief during an attack of illness or after the receipt of bodily injury; but, with the increased light thrown upon this subject by sanitary science, or, as it has been termed, preventive medicine, the hospital inmate should be placed under the most favorable circumstances for rapid restoration to health and strength. How grateful to the sick man is the release from his sick chamber! The monotony of living in, eating, drinking, suffering and attending to the calls of nature in a sick room is sufficiently irksome whilst change would be imprudent; it becomes doubly so to the convalescent if this same routine has to be followed, and in consequence his recovery is retarded.

These observations are made in view of certain changes which it is proposed to carry out in our hospital buildings. We should be glad to see a change, but not the change which is contemplated. In the first place, the site of the Montreal General Hospital is not the most favorable; still if an increased area of land can be obtained it would answer the purpose very well. It is very questionable whether property in the vicinity of the

hospital can be obtained at anything like a reasonable price, and again whether a much larger lot of ground might not be purchased than that at present owned by the corporation of the hospital for the price which will have to be paid for the land which it is contemplated to secure.

We observe in the evidence of some of the witnesses before the Committee to investigate into the nature of what has been termed the Tanneries land scandal, that they are reported to have said that the Tanneries property was admirably adapted for hospital purposes. There can be no two opinions on this point, and we think it a matter of regret that this property, which we understand was given to the Government of Canada for the purpose of erecting thereon a charitable institution, should in the end be diverted from the conditions of the gift of its donor and pass into the hands of a ring of land speculators. It appears to us that it was never contemplated by the donor of that parcel of land that the Quebec Government should make out of that land, by its sale, 100,000 coppers, much less that amount in dollars, and we should imagine that the heirs of the donor of that property could, in equity, reassume the land, since the Government do not want it and, in the most disinterested manner possible, desire to get rid of it for a consideration, which of course must go into the public chest. There is a lack of straightforward honesty about the whole affair which is very discreditable to all concerned. These remarks are made merely in connection with the subject of our hospital site. We are no politician, and do not desire to enter into the question of what was right or what was wrong in the matter of the Tanneries land scandal; moreover, in the present incomplete state of the investigation, no man is qualified to give any opinion touching this transaction, with the exception that the quibbling and apparent lack of honesty on the part of some of the witnesses is very pitiful.

It is much to be regretted that the land above referred to

known as Selby Grange, which came into the possession of the Quebec Government at the time of the division of the Provinces, was not reserved for charitable purposes exclusively. It is admirably situated for a hospital, being near the present site of most of our factories and Grand Trunk works, and sufficiently near the city for all practical purposes, having a tramway leading directly to it, and besides, in view of the contemplated building of a Western Hospital, there would be space enough to put up two buildings, or more if necessary. We are decidedly opposed to placing buildings of this nature in a cramped space; large and airy grounds should surround all hospitals, but more especially is this necessary for surgical patients. The success of all surgical operations depends in a great measure on the sanitary surroundings of the persons operated upon. No one can speak with greater earnestness than the writer on this subject, and he is forced to admit that the usefulness of the Montreal General Hospital as a surgical hospital has been greatly damaged by the several additions to the buildings of that institution which have been erected during the past six years.

Before proceeding to make the contemplated changes on the present locality we would earnestly request the governing body to consider the propriety of a change of site, and in undertaking this enterprise to secure sufficient space whereon to erect a hospital which would be worthy of the name, and be a lasting memorial of the benevolence and Christian charity of the people of Montreal.

ELIXIR FERRI ET CALCIS PHOSPHATIS CO.

Dr. T. B. Wheeler of this city has for some years past devoted his time and energy in giving to the public an exceedingly elegant preparation of the Lacto-phosphates of Iron and Lime combined with the alkaloids of Calisaya bark, after the formula of Dr. Dusart of Paris. Each half ounce of his Compound Elixir contains two grains of the Lacto-phosphate of Lime, one grain of the Lacto-phosphate of Iron, and one grain of the Alkaloids Quinine, Quinidine and Cinchonine, together with free Phosphoric acid. It is a preparation of great reliability, inasmuch as it is prepared with great care and under the direct supervision of the Doctor himself, who takes every precaution to maintain his preparation at a standard strength. This preparation must not be confounded with the various patented remedies of a somewhat similar character which are to be found in every drug store, the quality of which are doubtful, and which are generally made up for sale, without reference to any possible benefit that may follow their use. Dr. Wheeler's preparation is an agreeable tonic, and we believe it to be a valuable remedy in suitable cases. We call the attention of our readers to his advertisement to be found elsewhere.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Depressed Fracture of the Vault of the Skull in a Child of Five Years, Recovery. By GEORGE E. FENWICK, M.D., Professor of Clinical Surgery, McGill University.

On the evening of the 1st January, I was requested to visit a little child who had met with a severe accident resulting in a simple depressed fracture of the vault of the cranium. The history I learnt was as follows: while playing about in a large upper room in one of the wholesale warehouses in this city the little fellow wandered inside of a sky-light, broke through the glass and fell to the plank floor beneath, a distance of some sixteen feet. The accident was not observed, but his father, who was in the next room, hearing him cry, went to his assistance; when found, he was lying on his right side, was whining, seemed to be partially conscious, could give no account of himself, there was no external wound but the child appeared stunned and confused, the accident occurred shortly after mid-day, the child was taken home and as he appeared inclined to sleep he was put to bed and kept quiet. Before being put to bed he walked across the floor of the room complained that his head was sore, recognised those around him, seemed desirous of being left quiet, vomited twice, and subsequently fell asleep, it was a restless sleep as he would start and moan but did not awake, between three and four hours after the accident he was seized with a convulsion which continued

for some time. Before the family physician, who had been sent for, saw him he had had several convulsive attacks, when seen that gentlemen readily made out depressed fracture of the skull, and at the same time requested that I should be called in. I saw the child shortly before six o'clock the same evening and the following was the condition observed. There was marked facial paralysis of the right side the mouth being drawn over to the left, there was insensibility, the pupils of both eyes were dilated and insensible to light, the pulse was comparatively slow being 80 per minute, the right arm and leg were motionless, in flexing or extending either limb the muscles would be thrown into spasm and yield with a jerk. The left arm and leg were in constant motion, respiration was performed without difficulty but was accompanied by a sigh with each expiration. On examining the head he would raise his left hand up to the part as though semi-conscious. The scalp was puffy and tumid, there appeared to be a considerable quantity of blood effused beneath, from the position of the child, lying on his back, this blood had gravitated towards the occiput leaving the anterior part of the skull comparatively free, which enabled me to make out distinctly a depressed fracture situated on the right side a little below the mesian line and close to the anterior superior angle of the right parietal bone. The depressed fragment was below the surface fully the eighth of an inch, a sharp ridge could be felt indicating the point of fracture, which was in extent from an inch and a half to two inches. From the symptoms above described we feared some more serious lesion than the fracture. We determined to delay all operative interference and simply enjoin perfect quiet with the application of ice to the scalp.

Instructions were given to administer an enema of soap and water, or salt and water in the morning should the bowels not act. The family physician requested me to assume charge of the case to which I consented, and we agreed to meet on the following morning at 10½ o'clock. I saw the child again that night about 11, he was then perfectly quiet,

all moaning and movements of his limbs had ceased, he was sleeping calmly, the pupil of the eye was less dilated and acted slowly to the stimulus of light, the pulse was accelerated being about 110. Cold to the head was kept up all night, towards morning the bowels acted involuntarily twice and he passed water, he became more sensible and would move his head away from the ice bag. At the hour of visit he knew his parents and those about him, could move all his limbs, the distortion of the features had ceased, he was however very quiet, disinclined to move and I noticed a discoloured point in the under lid of the right eye. The cold to the head was maintained and gruel and milk was ordered as it was said he would take it without difficulty. He was to be kept in bed and absolute quiet enjoined. At the evening visit he knew me, put out his hand, smiled and appeared quite sensible. My attention was drawn to a subconjunctival ecchymosed spot which was attributed by the nurse to cold from the application of the ice to the scalp. It was not very extensive and was situated on the outside of the right eye.

On the second morning after the accident I learned at the hour of visit that he had passed a good night, had slept quietly, there was no return of the convulsions, the bowels had acted; when I entered the room he rolled over on to his hands and knees and then wheeled round into the sitting posture, there was considerable stiffness about the neck, the head was advanced and he could not raise his chin or bend his head backwards, when told to look up he would arch his body backwards but maintain steadily the fixed position of his head. The ecchymosed condition of the lower lid of the right eye and the subconjunctival effusion had somewhat increased. His pulse was about 90, he took nourishment but although he complained of hunger his food was restricted. On the third morning I learned that after passing a quiet night, he got out of bed and crept into the corner of the room and was found there by the nurse, quietly amusing himself. From this date he steadily improved the bone appeared to

be rising out of its unnatural position, at the present time the depression is scarcely appreciable, the tumefaction of the scalp entirely disappeared; several days after the accident upon carefully inspecting the head the fragments of bone appeared to be loose, but as this examination gave pain I desisted.

This case presents many points of interest to the surgeon, and practically it illustrates the facts that in depressed fracture of the skull in children we should not be too hasty in resorting to operative measures, and again that in some cases of most serious injury in childhood involving the brain recovery will in the majority of instances be the result. In this case there was found irritation of the brain presumably from depressed fracture of the vault of the cranium. Why then, it may be asked, delay following the usual surgical rule of removing the cause of irritation by elevating the depressed bone. It must be observed that it was a case of simple fracture aud converting a simple into a compound, fracture ought not to be lightly undertaken; surgical writers lay particular stress on this point, nevertheless it must be conceeded that in any given case a simple depressed fracture of the skull would demand imperative operative interference, if no chance existed of benefit from delay and auxiliary means—the well known tolerance of children to severe injuries of the head should always be remembered although disease attacking the brain in childhood is always serious if not generally fatal. Children appear to possess wonderful accommodation which is specially marked in injuries about the head. Their powers of repair are more active than in adult life, hence an injury that would be fatal to an adult will be frequently recovered from in childhood.

In fractures of the skull in children when the fragments are separated, or when there is a state of comminution or where a fragment is depressed there is less likelihood of its becoming impacted, this appears to me to be due to the absence of diploë, the entire thickness of the bones of the skull of a child is not much greater, if as great, as one of the

tables of the adult bone, hence the fracture of both tables is simultaneous it is the same difference as will be observed in cracking an inch board and a thin veneer,in the first instance the edges of the fissure on both sides will not correspond, and hence if displacement takes place they become locked. In the other the fissure on both sides will correspond, or nearly so, so that they rarely become impacted. Whatever may be the rationale of these injuries in children certain it is that in many cases of depressed fracture of the skull the bone will in due time be forced out and made to assume almost, if not entirely, its original position.

The prominent symptoms in this case were eccentric. There existed fracture with depression on the right side of the vault of the skull, there was right facial paralysis, paralysis of the right leg and arm and constant movements of the left extremities, from this it was reasonable to infer some more serious lesion than the depressed fracture described, a condition which was not going to be relieved by the formidable operation of elevating the bone at the point depressed. In falls from a height on to the top of the head resulting in fracture of the vault of the skull, it has been noticed in many instances that the fracture has extended through the base of the cranium. Dr. Arran, as mentioned by Mr. Bryant in his practice of Surgery, "found that the part of the vault which first struck the ground gave as it were the key to the fracture which would take place at the base," thus if the front part of the vault was injured, and the fracture continued into the base it would be found in the anterior fossa. If the centre of the vault was the injured point and if fracture of the base occurred it would be found in the middle fossa and if the posterior part of the vault was injured the posterior fossa would suffer.

In the case under consideration we had a depressed fracture at or near the junction of the anterior and middle portion of the vault of the skull, and it is quite possible that the injury had extended into the anterior or middle fossa of

the base. This supposition receives confirmation when we consider the ecchymosed condition of the right eye, both sub-conjunctival and into the cellular tissue of the lid. I can scarcely believe that the injury of the base was extensive, but it was sufficient to give rise to the train of symptoms already alluded to, which were those of irritation at the base of the brain, on the side opposite to that on which existed the depressed fracture of the vault. Practically this case is of importance, as illustrating the expediency of not too hurriedly resorting to surgical interference, more especially in cases of injury to children. I cannot do better than conclude this paper with the very practical remarks of Mr. Timothy Holmes, taken from his work on the surgery of diseases of children. In speaking of fractures of the skull, he remarks: "Many instances are on record of recovery after very formidable compound fractures, involving the loss of large portions of the surface of the brain, and simple fractures if not complicated with lesion of the centre or base of the brain, generally do well. The tendency being in most cases to natural recovery. * * Few cases, I think which will not recover under rest and cold application to the head, will do any better under more active treatment, and it is very rarely indeed that trephining is required."

24 Beaver Hall, February, 1875.

Case of Ovarian Cyst, pointing in the Perineum. By H. P. WRIGHT, M.D., Ottawa.

The following case being somewhat unique in several of its features will probably prove interesting to the readers of the CANADA MEDICAL AND SURGICAL JOURNAL:

Mrs. B., æt. about 50, widow, mother of seven children, all living, has suffered for more than eight years from dropsy of the left ovary. The progress of the disease has been remarkably slow and accompanied, at intervals, by a good deal of inflammatory pain. Shortly after she had first

noticed the "lump" in her side, she began to complain of, what she supposed to be, falling of the womb, which increased in a corresponding ratio to the ovarian disease until it appeared externally, when she became sufficiently anxious to consult a medical adviser, who considered it a case of "inversion of the uterus."

I first saw her a year and a half ago, when she measured 40 inches round the abdomen at the umbilicus, and the vaginal tumor appeared externally about the size of an ordinary orange, presenting a smooth surface, elastic, and very tense. It could be easily replaced when in the recumbent position and retained by a ball pessary. This, however, had soon to be removed, as it gave rise to pain and frequent micturition. By vaginal examination the uterus was found to be in good condition—hardly any displacement. The relations were perfect in front, but I could not pass the finger round the os behind. The feeling was as if the uterus had been doubled over on itself backwards.

No relief could be given and matters kept getting worse, the abdomen increasing in circumference and the vaginal tumor enlarging—the latter becoming so troublesome as to interfere with her walking, and from the constant friction large patches of ulceration made their appearance.

I did not again see her for about four months. The tumor had now attained the size and appearance of a prolapsed and distended bladder; indeed, from a careless examination one might easily conclude that such was the case. There was evidently fluid in the tumor, and in consultation with Dr. Laing, I tapped it and drew off over eight ounces of thin serum. This operation was repeated every week, as it relieved the dyspnoea from which she suffered severely. She lived but a short time after the tapping commenced;—it was but a "*dernier ressort*" to ease her sufferings as death approached. All doubt as to the nature of the tumor was removed by the tapping. The fluid pressure had pushed the recto-uterine fold of peritoneum directly downwards, separating the rectum and vagina, and finally protruding externally to such a degree as to render her utterly miserable.

No autopsy could be obtained.

Correspondence.

Montreal, Jan. 28, 1875.

Editor Canada Medical and Surgical Journal.

As Monobromated Camphor is being prescribed by the profession just now, and as no account of it is found in the text books, perhaps the following items may be interesting to your readers:—

Monobromated Camphor is formed by the combination of Bromine and Camphor at a temperature of 212° Fahrenheit or over, in a retort so arranged, that the products volatilized may be condensed and flow back; subsequent crystallization, &c.

It occurs in white or colorless prisms, also in long flat prisms perfectly transparent and hard, and sometimes in scales, according to the solution from which it is crystallized.

It is perfectly insoluble in water, but readily and freely soluble in alcohol, ether and chloroform. It is permanent in air, not affected by light, and tastes very much like ordinary Camphor.

The dose usually employed is two grains, which should be given in the pilular form.

Probably 1 grain in each pill, with extract gentian, or extract licorice as an excipient, would be the best and most scientific way of administering the drug. It might also be given in powder taken dry on the tongue. Being perfectly insoluble it should never be given in the form of mixture.

I have frequently seen bottles, brought to have the mixture repeated, with at least 8 or 10 grains of the salt adhering to the sides.

Very truly yours

HENRY R. GRAY.

HOSPITAL REPORTS.

Thoracic Aneurism.—Death—Autopsy.—Under the care of DR. WRIGHT.—Reported by MR. GEORGE C. DUNCAN.

J. B., aged 36 years, a strong well-built man, was admitted into the Montreal General Hospital, October 17th, 1874, under the care of Dr. Wright. The patient has served in the Artillery, in India, and while there had "jungle fever," from which he made a tedious recovery. He has never had any other serious illness, but he has been in the habit of taking intoxicating liquors freely. For the past six years he has been in the employ of the Grand Trunk Railway, in Montreal, and has had a good deal of heavy lifting to do. For some months past he has experienced what he supposed to be "rheumatic" pains in his right shoulder and chest, but no other serious symptoms. About eighteen months before his admission he was lifting an iron rail, and felt something give way in the upper and right side of his chest. After saying that he would go home, he turned round, but after walking three or four paces, he fainted and fell to the ground. When his companions reached him he was black in the face, and appeared to them to be in a fit. After loosening his clothes and applying whiskey and water to his head and face, he recovered consciousness, and soon appeared so much better that he insisted on walking home. This, however, he was unable to do, and he was accordingly taken home in a cab by a fellow workman.

After he recovered consciousness he began to vomit, as soon as he attempted to rise and walk, and the vomiting continued almost incessantly during the night. On the following morning, after taking some brandy, it stopped, and during the early part of the day he got up and dressed himself, but complained of feeling weak. On his return to

work, about a week afterwards, his fellow workmen noticed that his voice was husky and weaker than formerly, and also that he frequently stretched his right arm over his head, to relieve the cramp, as he said. During the dinner hour also he used to rub his right shoulder with coal oil and other remedies. When he had any heavy weight to lift he complained so much of his shoulder that his comrades nicknamed him "Shirking Jack." From this time until his admission he did not work very steadily, and was supposed by the other men to be drinking hard.

Condition on Admission.

There is an elevation in the right infra-clavicular region, and considerable bulging above the clavicle. The veins of the right side are enlarged, and there is œdema of the right arm.

On percussion, distinct circumscribed dullness is apparent over the left side and upper end of the sternum, extending to the right as far as the middle of the clavicle.

The stethoscope reveals a distinct bruit and thrill over the tumour. The heart sounds are muffled and indistinct, and the respiration is loud and sonorous.

The patient complains much of pain in his chest, and there is considerable dyspnœa and severe cough, which interrupts his sleep. He is obliged to have his head and shoulders raised, in order to relieve to some extent the dyspnœa.

Treatment.—He was ordered good nourishing diet, and the following mixture:

R. Potass. Iodid.
Tinct. Lobeliæ, aa 3ii.
Mist. Pect. Chron. ad oz. viii.
Sig: Tablespoonful three times a day.

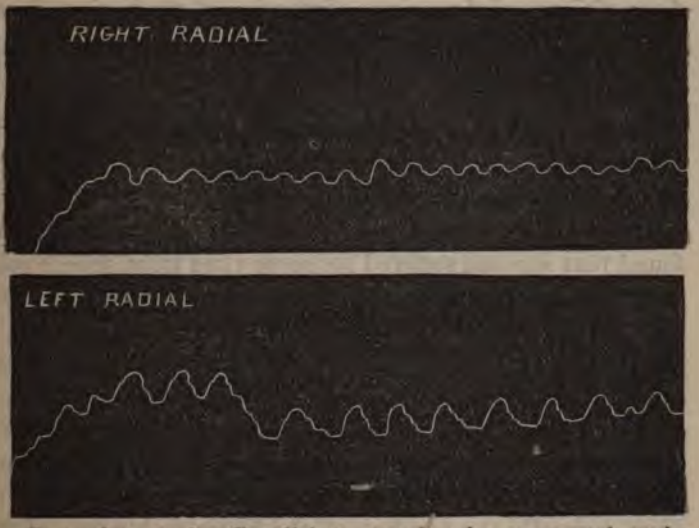
After taking the mixture for a few days, he was to some extent relieved from the pain and cough; the bruit, also, was not so distinct.

November 6th.—Not so well to-day; the voice is more

husky, and the paroxysms of coughing are very distressing, and seem to prostrate him very much.

November 15th.—To-day he is sitting up in bed, being unable to lie down on account of the dyspnœa, even for a few minutes. The cough is almost incessant, and large quantities of tenacious phlegm are expectorated. The radial pulse differs in the two arms, both in volume and rhythm.

November 30th.—Condition much the same. He is dizzy when he attempts to stand, and there is some dysphagia. The pressure of anything tight about his neck is not endurable, and even the pressure of the stethoscope causes such violent coughing that no satisfactory examination can be made. The pulse remains much the same, and on applying the sphygmograph, I obtained the following tracings :—



December 2nd.—Condition much the same, but he appears rather weaker.

December 5th.—Patient died last evening. He had been walking about the ward during the day, and in the evening, he asked to be helped across the room to a chair at his

bedside, on reaching which he took a few long breaths, and falling over on one side, he died without a struggle.

Autopsy.—A large double sacculated aneurism was discovered on the innominate artery, involving the superior border of the arch of the aorta, between the origins of the innominate aud left commcn carotid arteries. The tumour extended above the upper end of the sternum and inner extremity of the clavicle, to both of which it was firmly adherent. A large mass of dense tissue and fat, which also enveloped the left carotid artery for about two inches and a half, surrounded the anerismal tumour, to which it was firmly adherent, and from which it was with difficulty separated. The clavicle was dislocated forwards at its sternal extremity. No rupture of the sac, which was filled with fibrinous laminæ, could be found.

Case of Cerebral Aneurism—Softening of the brain—Death from Hæmorrhage. Under the care of Dr. Ross. Reported by Mr. Dorland.

M. W., aged 53, was admitted into the Montreal General Hospital on the 29 December 1874 complaining of headache and debility. She is of thin spare habit and unhealthy appearance. When questioned as to her symptoms it was found that she had suffered for some time from severe pain in the head which apparently had no special locality. She then immediately of her own accord commenced to give a long, rambling and incoherent account of a series of adventures in which she had, she said, taken part, and which were entirely irrelevant to her case. Whenever any questions were put to her she would thus in the same way wander off to something entirely foreign to the subject. She however gave correctly the number of the house and name of the street where she lived. Beyond this it was impossible to learn anything of the history of her illness up to the present time. Three days after her admission she had a slight epileptiform convulsion followed by a lengthened condition

of drowsiness. Following this at intervals during the next 48 hours there occurred four such seizures each of them slight, accompanied by but little spasm or lividity of the face, and during the intervals she appeared to be increasingly obtuse and drowsy. She could, however, be easily roused for the moment, by a question, to a degree of semi-consciousness. When left alone she continued talking quietly in an incoherent manner. Ordered Ammon Bromid gr xv every four hours in mixture—and Tinct Iodi to nape of neck.

Jan. 7th.—No return of convulsions. Is still quite delirious and could not for some time recognise her son who called to see her, but is sensible enough to ask for assistance to attend to the calls of nature. Bowels costive, respiration irregular, and headache still complained of when roused. *Ordered* Black Draught.

Jan. 8th.—Examined urine to-day and found about 10 per cent of albumen. A few light granular casts, numerous blood-disks and some debris were discovered by the microscope.

Jan. 9th.—Is very weak to-day but seems rather more rational and recognises her sons but cannot call them by name.

13th Jan.—Since last report has remained much the same. When left alone, she lies in a dull, stupid condition, making no complaint and asking for nothing. When spoken to, assumes a peculiar sickly and silly smile and answers in a foolish manner. She takes singular fancies into her head, for instance concerning her food, when sufficiently aroused to understand a question suggesting change of diet, she will answer for a day at a time in exactly the same words asking for some special article. When somewhat excited by the daily physician's visit she talks more and in a silly meaningless fashion and often smiles as above mentioned, at her own remarks. Urine remains albuminous. Microscopcial examination same as before. Both pupils somewhat dilated.

25*th Jan.*—Has been daily becoming more insensible. By loud talking or shaking can now only be roused sufficiently to give some slight sign of perception. When undisturbed, lies quietly unconscious. No stertor. To-day for the first time, although repeated examinations have been made, is evidence found of the existence of paralysis, the right arm feels quite flaccid when raised and the right eye does not close when touched. There is retention of urine for which the catheter is used and the fæces are passed involuntarily.

21*st Jan.*—Profound insensibility, inability to swallow, Paralysis of right side, slight muscular twitchings in the left arm, pulse failing rapidly.

22*nd Jan.*—Died at 1 p.m.

Post Mortem 24 hours after death. *Brain*—slight serous effusion in the sub-arachnoidean space. General fullness of the veins on the surface. A small bony plate about the size of the little finger nail was found under the pia mater and attached to one of the convolutions of the left hemisphere of the Cerebrum near the Parietal foramen. It did not seem to cause any disturbance in the part. It was smooth externally and marked by the convolution internally Arachnoid at the base healthy. Walls of the arteries at the base thick and atheromatous. All the ventricles healthy, Cerebellum normal.

A small sacculated aneurism about the size of a hazel nut was found situated on the left internal carotid artery just at the commencement of the fissure of Sylvius where it divides into its terminal branches. On slitting up the vessel the aperture to the sac was discovered, oval in shape about 1 line in length by 1½ line in width. The sac was completely filled with a firm decolorized fibrinous clot. From the delicacy and thinness of the walls of the vessel it could not be made out how many of the coats composed the sac. The coats of the vessel were atheromatous and patchy in the neighbourhood of the aneurism. The vessel was pervious under the sac, though it may have been compressed somewhat

by the pressure of the tumor. The tumor itself probably produced no symptoms during life. In the course of the middle cerebral artery along the fissure of Sylvius there was a soft black clot of recently effused blood. The cerebral substance was beneath this reduced to a soft reddish pulp over a space the size of a half dollar and extending to the depth of about one line. The blood had been probably effused gradually, corresponding to the gradual devel. opment of the symptoms of compression during life.

Heart.—An unusual deposit of fat on the heart and pericardium. Valves healthy except a large atheromatous patch on the upper segment of the mitral. Large white ante mortem clot in the right heart.

Lungs.—Lower lobes collapsed. Congestion of the substance of both lungs. Puckering at the apex.

Liver.—Rather small but healthy.

Spleen.—Normal.

Kidneys.—Natural size. Surface of the capsule smooth and non-adherent, section shows marked congestion of the pyramids. No thinning of the cortical portion. Surface of the organs not granular, weight ℥ vi.

Case of Pleurisy with effusion—Tapping—improvement

Under the care of DR. DRAKE. Reported by Mr. T. G. HOCKRIDGE.

I. T., a French Canadian, aged 27 years, a storeman by occupation, was admitted to the general wards of the Montreal General Hospital, May 6th, 1873, under the care of Dr. Drake. Previous to his admission he had suffered for two or three weeks from chills, headache, fever and considerable dyspnœa, which increased very much when he attempted to lie upon the left side. Although he suffered a good deal, he was not confined to bed, but merely remained in the house. On admission, a physical examination revealed marked fullness in the left infra-clavicular region, with depression of the left clavicle and shoulder; measurement round the left side of the chest ½ of an inch greater

than that of the right ; marked dullness over the left lung both in front and behind, the dullness extending about 3¼ inches to the right of the median line of the sternum. The apex beat of the heart was visible over the ensiform cartilage. Respiratory murmur intensified over the unaffected side. He was prescribed the following, three times a day.

℞

Potass. Iodid. gr. x
Potass. Acetat. gr. xx
Tinct. Cinchon ℥iss

Over the left lung he was ordered a fly blister, the skin to be subsequently dressed with Ung. Hydrarg dil.

May 8th.—Pulse 120, weak and irregular ; Temperature 102 4-5 ; Respiration 36. He was ordered the following pill to be taken three times a day :

℞

Pil Hydrarg gr. i
Pulv Scillæ gr. ii
Pulv Digital gr. ss. Ft. pil.

May 9th.—Pulse 120, very irregular and also intermittent ; Temperature 103° ; Respiration 36 ; He was ordered a pint of beef tea and two ounces of wine.

May 10th.—Pulse 123, weak and irregular ; Temperature 103° ; Respirations 36 ; On measurement, the left side was found to have increased ½ an inch, and the dullness had extended ¾ of an inch further to the right side of the sternum. Dr. Drake made an exploratory puncture at the posterior base of the left lung and drew off about an ounce of highly albuminous fluid.

May 12th.—Pulse and temperature remain the same. No albumen in the urine ; No dyspnœa or pain ; Dr. Drake tapped the chest with Dieulafoy's aspirator and drew off 7½ pints of fluid ; the last two ounces drawn off contained a small quantity of blood. Immediately after the operation the dullness was considerably diminished both in front and behind, the heart resumed its normal position and a good pulmonary note could be elicited ¾ of an inch to the left of

the sternum. On measuring the chest the left side was found to measure an inch less than the right. A slip of adhesive plaister was placed over the aperture caused by the aspirator, and a light flannel bandage applied round the chest. During the operation the patient coughed severely and the cough continued troublesome for the rest of the day. The mixture and pills were stopped, and a draught of Tinct. Opii and Chloric Ether ordered at bed-time. He was allowed ice to allay the cough.

May 13th.—Pulse 124; Temperature 103 3-5 ; Respiration 36; Cough less frequent; Slight diarrhœa; No pain in chest, vocal resonance and vocal fremitus absent over the affected side, expansion of the left side improved and also the percussion note is clearer.

May 14th,—Pulse 120, Temperature 103 3-5; Respirations 32; not much cough, much heat of skin, dullness diminishing.

He was ordered ℞

Tr. Ferri Perchlor	℥iii
Potass Acetat	℥iv
Ac Acetic	℥i
Aquæ ad	ℨvi

A tablespoonful every four hours.

May 15th.—Pulse 120; Temperature 103 ; Respirations 30; Does not feel so well ; felt pain through the night over the left lung, and turpentine stupes were applied, which relieved him. The mixture of yesterday was changed to

℞ Tinct Ferri Perchlor	℥iii
Potass. Acetat	℥iv
Acid Acetic	g. s.
Infus Digitalis	ℨiii
Aquæ ad	vi

A tablespoonful three times a day.

8 p.m. Pulse 112; Temperature 104¾; Respirations 30. Skin hot, diarrhœa has ceased.

May 17th.—10 a.m. Pulse 96; Temperature 100 4-5; Respirations 30. Passed a good night, slight dullness over

the left lung both in front and behind, respiratory murmur audible all over the left lung, but weak. A few moist rales at the apex, and fine crepitation at the base. The left lung was painted with tinct of iodine and covered with cotton wadding and oiled silk. 10 p.m. Pulse 112; Temperature 103 4-5; Respirations 36; Patient easy and comfortable.

May 18th.—10 a.m. Pulse 112; Temperature 99; Respiration 36. He complained of pain in the right side, and he was given morph. gr ¼ hypodermically.

May 19th.—10 a.m. Pulse 115; Temperature 102 1-5: Respirations 36. The left side of the chest was found to be still an inch less in measurement than the right. 10 p.m. Pulse 112 Temperature 103; Respirations 31.

May 20th.—10 a.m. Pulse 112; Temperature 102 1-5; Respirations 30. Moist rales all over the posterior part of the left lung, loudest at the base, heard also in front at the apex. Pain over the left lung, for which he had morph gr ¼ hypodermically. 10 p.m. Pulse 93; Temperature 100 1-5; Respirations 28; Sleeps quietly.

May 21st.—Pulse 112; Temperature 101 1-5; Respirations 30. No pain anywhere; appetite good; ordered a pint of beer.

May 25th.—Pulse 96; Temperature 102 1-5: Respirations 28; Medicine discontinued; Bowels regular.

May 26th.—Pulse 100; Temperature 102; Respirations 28. He was ordered

℞	Tinct Ferri Perchlor	℥iii
	Quinæ Sulph	gr xii
	Syrup Simpl	℥iv
	Aquæ ad	℥vi

A tablespoonful three times a day.

Dullness and moist rales over the left side as before, depression under the left clavicle, respiratory murmur over the right side intensified, but no moist sounds; appetite remains good. The temperature is highest about noon each day and declines towards the evening.

May 29th.—Pulse 100; Temperature 101 2-5; Respira-

tions 24; Feels well and wants to get up. He was ordered to have Infus Digitalis ℥iii added to his mixture.

June 2nd.—Pulse 100; Temperature 100 4-5; Respirations 24. Chest measurements the same as before; moist rales and dullness over left lung; Condition of the right lung remains as before. From this time until he left the Hospital, which he did soon after, the condition of the patient remained much the same. The average morning temperature was 100 to 102, and that of the evening was 102 to 103 4-5. His general health improved in spite of the continued elevation of temperature, and he left the Hospita three weeks after the operation.

Reviews and Notices of Books.

Essentials of the Principles and Practice of Medicine. A Hand book for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, &c, &c. Fourth Edition thoroughly revised, with one hundred illustrations, 8 vo. pp. 548; Philadelphia, HENRY C. LEA, 1874.

This little work first saw light in 1867, and in the preface to the first edition the author observed that it was an unambitious effort to make useful "the experience of twenty years of private and hospital practice." His unambitious effort has been to all appearance appreciated as the work has run through four editions.

We are puzzled how to commend this little book because although it contains much that is useful, nevertheless we are convinced that practical instruction is not to be gained through an epitome of this description. It is just this kind of work that will be selected by the ignorant or idle man, as here he has at hand a short, concise list of symptoms,

also pathology, prognosis and treatment of disease, all in readable space and which will not over fatigue him by being too voluminous, and again if he requires any suggestions as to remedies to be employed he will find an extensive formulary from which to select.

But these formulæ are not even reliable, indeed there are few that we should care to prescribe, and some that would require considerable alteration before they could be prescribed.

We should suppose that the author has very little practical experience of the qualities of drugs, for instance at No 54, we read R Chlorate of Potassium, half an ounce, water six fluid ounces, dissolve, the dose of which is half an ounce every three or four hours. Chlorate of Potassium is very insoluble, this fact is known to all practical men and we doubt much whether six fluid ounces of water at the ordinary temperature will hold in solution two drachms of Chlorate of Potassium let alone double that quantity.

The work however contains much that is essential, and that will be understood by a man who has been properly grounded in the elements of his profession, it may aid the practical man as he will find ready at hand, descriptions, definitions, terms, and conditions of the economy met with in disease and which require to be discriminated and interpreted by the physician before he can treat his patient with a chance of success.

In the early editions the author confined his remarks in a great measure to what he had himself learned at the bed side. In this edition he has partially modified his plan, "so far as to embody the most important suggestions as well as results of observation, presented in recent medical literature.

The author has enlarged his scope. In part I. we notice he discusses the subjects of Chronic Inflammation, Morbid Growths, Neuropathology and the modes of death. In part II. he considers the semiology of diseases of women, the use of the ophthalmoscope, the pneumatic aspirator &c.,

Under the heading "General Therapeutics" he considers in addition the following, Climatic treatment, Hydropathy Movement cure and Transfusion of blood. All these are additions given in the same short concise method as is observed throughout the work. The present edition is likewise embellished by one hundred wood engravings, they have been carefully selected with a view of elucidating to the student a number of subjects of especial interest and importance.

Clinical Lectures on Diseases of the Urinary Organs. Delivered at University College Hospital. By Sir HENRY THOMPSON, Surgeon Extraordinary to His Majesty, the King of the Belgians, Professor of Clinical Surgery, and Surgeon to University College Hospital. Second American, from the third and revised English Edition, with Illustrations. 8 vo., pp. 195. Philadelphia: Henry C. Lea. 1874.

These lectures were published originally by the London *Lancet*, in 1868, from a short-hand report, taken at the time of their delivery before the Clinical Class at University College Hospital. They were delivered by Sir Henry Thompson, in a colloquial style, the subjects having been prearranged, but were never committed to writing by the author. This Course of Lectures, the author has given before the clinical class year by year, with such modifications and additions as were demanded by his increased experience.

The present edition contains the substance of the lectures on this important subject, delivered during the Session 1872—73, and comprises the latest views enunciated by the author, with all the alterations he deemed necessary. When first delivered, these lectures were twelve in number. In this edition, the author gives us a general *résumé* of the entire subject of the treatment of Stricture, specially referring to internal urethrotomy. This is found in Lecture IV., and Lecture XI, he devotes to the consideration of

the early history of Calculous diseases, and the treatment best adapted for their prevention. The work partakes of the same practical character which distinguishes the former writings of the author, and which has been so fully appreciated by the profession. Alterations will be found throughout the text, more especially on those points in which the author has gained experience by a careful and judicious record of the cases which have come under his observation.

We regret to notice, that Sir Henry Thompson has resigned his connection with University College Hospital; but although the increased demand on his time by private patients, has apparently led to this change, we feel convinced, that a career so full of usefulness, will not, in any respect, be at an end; but, that with additional opportunities for following out his specialty, he will continue to give the results of his observations in future editions of his lectures on urinary diseases.

Periscopic Department.

MEDICINE.

Clinical Leeture on Itch in Private and in Public Practice, and its Treatment. By TILBURY FOX, M. D., F.R. C.P., Physician to the Department for Skin-Diseases of University College Hospital,

Gentlemen,—There are certain differences in the cases of itch that come under our treatment in public and in private practice respectively, to which I wish particularly to direct your attention. By public practice, I mean such as hospital, infirmary, and Poor-law practice, amongst the poorer classes. The matter is one of practical importance to you. You know that, in describing scabies to you, I do not follow the usual method of books, and divide the disease into papular, vesicular, and pustular scabies, and so forth; but I speak of the disease as consisting in an ***essential*** **element or lesion, the acarus in and with its furrow,**

and certain *accidental* concomitants, which result as consequences of the irritation set up, and the scratching practised for the relief of the latter, ; of, in fact, the acarian furrow and imbedded acarus, and the results of irritation. These latter vary in kind, and include hyperæmic papillæ and follicles, vesicles. pustules, and excoriations, &c. Now, in private practice amongst the better classes, the differences in cases of scabies, as campared with those observed in hospital practice, are those of *degree*, not kind, and have reference chiefly to the *accidenta*l concomitants, and only slightly to the essential lesion of scabies.

In private practice. cases are occasionally met with equal in severity to any that are seen in public practice ; but, on the other hand, as the rule, they are not so severe, and the disease is not ao extensive, and *very frequently in private practice instauces come under observation, in which the accidentals of scabies are scarcely if at all marked.* There are a certain amount of itching, and an acarus or two here and there, and nothing more ; and such cases are often erroneously diagnosed. There are many instances of scabies only a slight shade worse ; a few acarian furrows, with a few papulations.

The variations are due to several causes, chiefly to the observance of greater cleanliness, the seeking of medical advice earlier (so that the disease has not time to put on the aspect of severity), and to the better nutrition, amongst the better to do, as compared with the poor classes. Cleanliness has the greatest influence, because it is a great check to the development, and migration from part to part, of the acari ; and mal-nutrition amongst the poor favours the development of the pustular concomitants ; and, lastly, the longer the disease lasts, the greater, of course, is the scratching. When want of cleanliness, much scratching, and mal-nutrition go together, the worst cases of scabies occur, and they may now and then, as I have said, be met with in private practiee. But, inasmuch as private patients are more cleanly than public ones, seek advice

earlier, and are well fed, scabies amongst them occurs in its least expressed form. But even when the disease has existed some time, it is surprising how slightly marked the disease is in some cases, on account of the extreme cleanliness observed, and the repeated washings practised by private patients.

It is with these slighter cases of scabies that I wish to deal specially—with those in which a solitary or a few acari are present, and very little else. A hasty observer may readily overlook the nature of such cases as those to which I now refer more particularly. I occasionally see instances of scabies which, at first sight, would seem to be instances of pruritus simply. There are two circumstances, however, about them, which should always put you upon your guard. The one is the seat of the pruritus—viz., the front of the abdomen, the penis, the inner and upper part of the thigh, and the front of the forearms; and the other is the occurrence of the pruritus especially, or perhaps only, at night, when the sufferer gets warm beneath the clothes. If careful examination in such cases be made, a reddish papulation may be detected along the upper line of the penis, or a solitary acarian furrow at one of the interdigital spaces or about the wrist; and this may not be readily found. I have often detected after careful search a stray furrow concealed by some of the little folds of skin in the interdigital spaces, which had escaped observation for awhile. About the forearm may or may not be a few very delicate papulations that require, for their clear detection, that the skin should be looked at obliquely. Of course I mean that, in the cases I describe, acari have been actually extracted from these solitary cuniculi. There may be no eruption any where but on the penis, one or two acarian furrows being seated there. I have known such cases complicated by glandular swellings in the groin, and mistaken for syphilis; but, if careful examination be made, the acarian furrows may very plainly be made out; and the swelling accompanying the furrow lacks the indurated

character of a true chancre, and is clearly simply inflammatory. In these cases of very slightly marked scabies, there is mostly no concomitant aid to diagnosis; I mean, for instance, no infection of others in the same family, &c. In a somewhat more marked degree, where there are a few acari and furrows about the interdigits, or the wrists, or perhaps the penis, with a small amount of rash on the forearms and the abdomen and thighs, the disease is very common. The acarian furrows, if the persons attacked be very cleanly, may readily be overlooked again, because they are not discoloured and rendered more distinctly visible by dirt; and frequently the acari are scratched away, and only the opened up cuniculus remains; but the form or skeleton of the cuniculus is seen. A little circular area, whence the cuticle which was upraised into the vesicle is gone, is seen; and, stretching away from this, is a line marked out on each side by loose cuticle, forming at one time the walls of the now opened up cuniculus. This is practically diagnostic of scabies. The papulation, if any, in these cases, about the forearms and the thighs, is made up of hyperæmic papillæ and follicles more or less scratched. There are no acari anywhere, but about the wrists and interdigits and the upper line of the penis. In these cases, the occurrence of itching at night, and the presence of fine papules on the anterior surface of the forearm and about the abdomen and thighs, at once suggest the probability of scabies being present.

The next degree of scabies does not differ from that ordinarily seen in public practice. I would say, then, as regards private practice, be very careful to satisfy yourselves that scabies is not at the bottom of what at first sight appears to be pruritus, which is intensified or developed at night, and is specially seated about the abdomen, the inner part of the thighs, and the forearms or hands. I know that such cases are oftentimes scabies, but are not diagnosed correctly till the disease developes to a decidedly significant extent.

Of course, I have been speaking of the disease in adults.

In the case of children, there may be no characteristic evidence of scabies about the hands, but only about the feet and buttocks. It is often difficult to detect cuniculi acari in very young children. But one very good guide is to be found in the character of the eruption. The disease most liable to be confounded with scabies is lichen urticatus. Well, that consists of wheals leaving behind papules. It may be said to be an uniform disease as regards eruption. There is no eruption besides the wheals and papulation. But in scabies the eruption is uniform. It is papular, vesicular, and pustular. In public practice, the scabies of children is marked by complicating ecthyma, as might be expected; but this is not so common in my experience in private practice.

Turning to scabies in public practice, I have only to observe, on this occasion, that the diagnosis of scabies, as ordinarily seen, is, as the rule, very easy. But, in rarer instances, the disease is so general, and so intermingled with excoriations and puriginous papules, etc., that it presents the aspect rather of a pruriginous eczema, or phthiriasis mixed with eczema, than a scabies, since the eruption is not confined to the usual seats of itch-rash, but attacks the parts about the shoulders, the back, the lower parts of the legs, and back of the forearm, as well. But there is one very safe guide in these cases; and that is, the history of the eruption, which shows that the latter began as scabies usually does, whilst acarian furrows will be detected, although most of them may be obscured by the free suppuration about them.

Treatment.—I have some special remarks to make in regard to the treatment of itch-cases in private and in public practice. You may very readily overtreat cases of itch in the former, for the reason that the disease is less severe, and the acari are not present over so large an area. In the mass of instances occurring in public practice, the disease exists for the reasons I have before given, extensively over the surface, and acari have burrowed, not only about the hands, but in other parts of the body, especially

the penis, the feet, the scrotum, and the abdomen perhaps. But in many cases in private practice, I mean amongst the well-to-do, the acari are *only* present at the interdigital spaces. Hence it is a rule of prime importance in treating itch, to accurately determine, at the outset, how far the acari have disseminated themselves about the body. The reason is obvious. There is no need to apply paraiticides to parts in which acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action ; and these irritated parts will get well if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticide are, but soothing remdies. The practice is to apply to every part of the body where eruption exists in cases of itch. Clearly this is wrong, from what I have just said. My rule is this : if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. If, however, there be—I am speaking of the slighter degrees of disease—cuniculi about the penis as well as the hand, and especially if the disease appeared to begin coincidently in point of time by itching about the lower part of the abdomen, then I apply the parasiticide to the hand and the penis ; but even here I do not rub in the remedies very long (for three nights and three mornings), and I only, for precaution sake, let the patient smear the parasiticide upon the scrotum and the thighs, and for two or three times. I then order a soap bath, a change of linen, and I expect my patient to be quite well. The absence of pruritic irritation at night on the third day I take as a good test to the cure of the disease. In no case do I use any but parasiticides of moderate strength ; half a drachm of sulphur to the ounce of lard is a sufficiently strong ointment, if sulphur be the remedy chosen.

But I will suppose that a well marked case of itch comes before you in a well-to-do person. Here I recommend you

not to depart from the rule I have laid down, viz., not to use your parasiticide generally to all the body, but to rub it freely in where the acari are, about the hands, the penis, and the scrotum, and to smear it gently on a few times only to the adjoining parts ; to use it for three days only, and not in too great strength. This suffices to kill all acari, and the secondary results, viz., those of irritation, quickly subside. What frequently happens is, that the remedies kill the acari, but their use is persisted in longer than is necessary to effect this object, and only aggrevates the already existing irritation and secondary eruption.

I repeat, then, by way of summary, that in private practice, if the disease be slight and recent, use the parasiticide to the hands only, and soothe the other parts with some emollient or astringent lotion or ointment : and, in all other cases, treat actively the hands and the parts about the genitals, but other parts only very slightly. In all cases, use remedies of moderate potency ; at the end of three days leave off the parasiticide, give a soap and water bath, and see if the itching at night have ceased. If any visicles appear betwen the fingers or about the wrists subsequently, these may be touched by the parasiticide. But if the latter be used for any length of time, the itching and irritation which had at first subsided, may increase, and this increase is often mistaken for an exaggeration of the itch, whereas it is that of the secondary pruritic eruption. In these cases. the skin becomes so irritated that it is a difficult matter to get it into a quiscent and healthy condition. *Over-treated cases of itch in private practice are by no means uncommon.*

I have one word to say in conclusion, about bad cases in private and public practice, and the use of sulphur vapour-baths. In these bad cases, no doubt the acari are disseminated widely, and active treatment is needed. One remedy in common use is the sulphur-bath. I think a caution is needed as regards its use. I believe that it is abused. Though I much prefer a good soaking in a sulphuret of potassium bath, and the prescription of a mild parasiticide

ointment, yet sulphur vapor-baths may be employed; but I think a single one properly administered—at most two—sufficient. I would have the patients well washed, first of all with soap and water, and then put into the sulphur-bath. If the effect be that the pruritus at night is destroyed, I do not think it needful to repeat the bath, especially where the skin is much inflamed. You have seen, yourselves, many cases in which these baths have cured the actual scabies, but have set up a severe inflammation and pruritus in the skin that are most difficult to subdue. I never use sulphur vapor-baths in itch, on that account, except where the disease is of the severest kind, because I believe all the acari can be destroyed by simpler and less irritating applications. In these cases, the same rule holds good, I think as in the simpler cases. It is easy to over-treat these cases. If, at the end of a few rubbings with mild sulphur or storax ointment the skin be less inflamed, less irritable, the vesicles and pustules drying up, and the patient get a good night, I consider that the itch itself is practically well, and I then treat by parasiticides the usual haunts of the acari and soothe other parts, But there is another very important matter in these cases. It is to keep the same linen on next the skin during the use of the parasiticide, and when a change of linen is made, to disinfect all the clothes by heat. I cannot now go into the question whether the acari dwell temporarily in the clothes. They can, no doubt, live long enough off the body in the clothes to be conveyed by clothes from one person to another, and, if so, then it is important to prevent these clothes from serving as the media of re-propagating the disease, or transmitting it from the infected to the healthy.—*British Medical Journal.*

Diphtheria.—The Board of Health of New York has published (*Medical Record*, Jan. 9, 1874), for popular information, the following precautions wnich should be observed wherever diphtheria prevails:—

Precautions—(*a.*) *The Dwelling or Apartment.*—Cleanli-

ness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance where any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth around and in the house should be thoroughly removed; cellars and foul areas should be cleaned and disinfected: drains should be put in perfect repair; dirty walls and ceilings should be lime-washed, and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants; ceilings lime-washed, and woodwork painted; the carpets, bed-clothing, upholstered furniture, etc., exposed many days to fresh air and the sunlight (all articles which may be boiled or subjected to high degrees of heat should be thus disinfected); such rooms should be exposed to currents of fresh air for at least one week before reoccupation.

(*b.*) *When Diphtheria is Prevailing.*—No child should be allowed to kiss strange children nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well contrived method of propagating other grave diseases than diphtheria); nor should it sleep with nor be confined to rooms occupied by, or use articles as toys, taken in the mouth, handkerchiefs, etc., belonging to children having sore throat, croup, or catarrh. If the weather is cold, the child should be warmly clad with flannels.

(*c.*) *When Diphtheria is in the House or in the Family.*—The well children should be scrupulously kept apart from the sick in dry, well-aired rooms, and every possible source of infection through the air, by personal contact with the sick, and by articles used about them or in their rooms, should be rigidly guarded. Every attack of sore throat, cough, and catarrh should be at once attended to; the feeble should have invigorating food and treatment.

(*d.*) *Sick Children.*—The sick should be rigidly isolated

in well-aired (the air being entirely changed at least hourly), sunlighted rooms, the outflow of air being, as far as possible, through the external windows by depressing the upper and elevating the lower sash, or a chimney heated by a fire in an open fireplace; all discharges from the mouth and nose should be received into vessels containing disinfectants, as solutions of carbolic acid, or sulphate of zinc; or upon cloths which are immediately burned; or if not burned, thoroughly boiled, or placed under a disinfecting fluid.

On the Minute Pathology of Enteric Fever: Preliminary Notice. By E. KLEIN, M.D.

[Dr. Klein has kindly furnished us with the following notes translated from the *Centralblatt fur die Medicinschen Wissenschaften*, Berlin, 1874, Nos. 44 and 45, in which it first appeared.]

1. Sections through the hardened ileum of persons who have died in consequence of enteric fever, show that there takes place an abundant absorption of peculiar organisms, by the lymphatics and venous vessels of the mucous membrane over and around and in the Peyer's glands.

2. In the earliest case I have examined (seventh day from the day on which headache came on), Lieberkuhn's crypts contained in their lumen peculiar greenish-brown, generally spherical, bodies of various sizes: the largest being twice and three times as large as a human colored blood-corpuscle; the smaller ones only one-half or one-fourth as large. They are densely crowded together, and appear then of a dark olive-green color. At the margin of such clusters, where they lie more isolated, numerous kidney-shaped or hourglass-shaped forms are to be met with, thus indicating rapid division. Similar bodies are to be found in the tissue of the mucous membrane, when they appeared to be enclosed within the lymphoid cells of the adenoid tissue. They are also contained in the venous vessels, and occasionally in a lymphatic space. In the

former, they undergo rapid division in two and three, whereby they gradually split into small granules—micrococci, which are of a yellowish-green color. These micrococci are arranged either as dumb-bells, or as necklaces of four and more joints, or they form true zooglœa. Finally, these micrococci stand in a genetic relation to a mycelium, the filaments of which are branched, apparently smooth, and of a yellowish-green color. (Similar observations I have published in a paper on sheep-pox, read before the Royal Society.)

The organisms just mentioned are to be met with, not merely in the neighbourhood of Peyer's glands, when moderately swollen, but also in portions of the intestinal mucous membrane, which, on microscopical inspection, except a slight general swelling, do not present any marked changes; microscopical observations show, however, also here, changes in the lymph-follicles of Peyer's glands, which will be described hereafter. Besides these organisms mentioned above, there are also found lumps of the same micrococci, as before mentioned, penetrating from the free surface through the epithelium into the substance of the mucous membrane, especially into the Lieberkuhnian crypts, and hence into the lymphatic spaces surrounding the latter.

3. In a case more advanced (twelfth day), I found exceedingly large quantities of micrococci penetrating from the free surface of the mucous membrane into the tissue of the latter and into the Lieberkuhnian crypts, and hence into the lymph-spaces and venous vessels: this was the case, not only with the mucous membrane around the Peyer's glands. but also with parts of the mucous membrane that were somewhat remote from these glands, and which did not show marked changes on macroscopical inspection. Where these micrococci form close groups, as in and around the Lieberkuhnian crypts, they appear of a rather yellowish-brown color.

4. In another case, still more advanced (sixteenth day),

I met with the same relation; the number of micrococci being, however, much smaller.

5. The lymph follicles of the Peyer's glands showed, in the first case, (seventh day), a peculiar change, consisting in the centre of the follicles being converted into a spongy mass, owing to their blood-vessels being surrounded by spaces, lined by the adenoid tissue ensheathing the blood-vessels. The lymphoid cells of the adenoid tissue were transformed into large granular corpuscles containing two to five and more nuclei, which very much resembled the nuclei of "endothelial" cells. In some of the lymph follicles, I found two giant-cells.

In the later stages (twelth day) also, the mucous membrane showed similar changes; the lymphoid corpuscles of its adenoid matrix being transformed into large, coarsely granular cells, containing either one large vesicular or constricted nucleus, or several such nuclei. Some of these cells possessed a vacuole, containing two or three small spheroidal nuclei. Similar cells were found in the venous vessels of the mucous membrane and the submucous tissue, as well as in the lymphatics of the latter.—*British Medical Journal.*

The American Agave. By A. N. ELLIS, M. D., A. A. Surgeon U. S. A., Fort Wallace, Kan.

Through the columns of your Journal, I would like to say a few words on the "American Agave."

Several years ago, when I was the attending physician to the Southern Apaches, in New Mexico, my attention was first called to its valuable properties as an anti-scorbutic. When the Southern Apaches were removed from Canada-Alamosa, on the Rio Grande, to the Tularosa Valley, in the Mogollon Mountains, the altitude was so great—between seven and eight thousand feet above the level of —and the seasons so short, that but few vegetables d. The food of the Indians being almost exclu-

sively meat, an anti-scorbutic was demanded. Much to my surprise, there was not even the slightest appearance of scurvy. Investigation showed that these Indians were making use of the agave Americana, which grows in abundance in that mountain region. It is an evergreen, succulent plant, often growing to a height of fifteen feet, and is found in Texas, New Mexico, Mexico, and Central America. It bears some resemblance to the genus *aloe*, and hence it is often spoken of as the *American aloe.*

The juice is expressed from the leaves and the root. When fresh it is of a sweetish taste and nauseous odor, and reddens litmus paper. Evaporation converts it into syrup, and fermentation into an intoxicating drink. The Apache seems to be acquainted with the virtues of the plant, more especially those which constrain him to show forth his real disposition. The Mexicans employ it in the treatment of constipation and amenorrhea.

I made use of this remedy in the treatment of a number of soldiers suffering from scurvy with the happiest results. Found it as prompt and efficacious as lime-juice. Gave two or three ounces, twice a day, of the fresh juice. Maceration of the root and leaves produces a soft lather, and is much used in washing clothes, more especially in garments of beautiful and delicate colors likely to fade under the use of common soap. The fibres of the old leaves—those which have been macerated for several days—are used for making thread.

The American agave is indigenous in tropical America, but has been transplanted to Europe, where it is used in making hedges. It is not this plant which produces the intoxicating *pulque*, so much used by the Mexicans, but one of another species, to which it bears many points of resemblance.—*Cincinnati Lancet and Observer.*

Operation by Professor Lister for Goitre.

Last week Professor Lister operated successfully at the Edinburgh Royal Infirmary, in a case of goitre affecting both sides of the thyroid body. Before proceeding to remove the tumour, the operator ligatured the superior and inferior thyroid arteries, by which preliminary hæmorrhage was almost entirely prevented.—*Students' Journal.*

Brain Disease Simulated by Overstrain of the Convergence Muscles of the Eyes.

Mr. Brudenell Carter described the case. The patient, a young gentleman, was interrupted whilst reading for honours at Oxford, by double vision and vertigo, followed, if the effort to read were continued or soon resumed, by sickness, palpitation, and intense headache. These symptoms were attributed to some obscure affection of the brain, and the patient was directed to leave the university without taking a degree. He remained for some time at home, under medical treatment, without improvement, and, on coming to London for further advice, was told to take a voyage to Australia and back, in order to rest his brain. He did so, but returned no better, and was then advised not to enter into business, and to abandon his engagement to marry. Mr. Carter was consulted about the case, in order that he might say whether the ophthalmoscope revealed anything abnormal in the cerebral circulation. He found the patient to be very short-sighted, and that he had never worn spectacles. In reading, he held his book seven inches from his eyes; and Mr. Carter ascribed the symptoms to inability to maintain this degree of convergence for many hours. He ordered spectacles to be worn constantly, and reading to be practised at eighteen inches distance. In three weeks the patient returned cured, with his wedding-day fixed and his arrangements for entering into business completed. In his concluding remarks Mr. Carter said that the case, though exceptional, was exceptional only in degree, and that many patients suffered from headache and other symptoms due only to impaired harmony of the ocular muscles, or to inordinate exertion of some of them. He urged that, in every case of obscure head-affection, the state of refraction, of vision, and of the muscles should be carefully investigated; at all events, before a patient was sent to Australia, or advised to abandon his position and duties in life.

Dr. Hughlings-Jackson considered Mr. Carter's paper be as interesting to physicians as to ophthalmic surgeons

He (Dr. Jackson) referred to a case in which hypermetropia, which was an indirect cause of nervous troubles, had been by several eminent ophthalmic surgeons and by himself misinterpreted. It disappeared when appropriate glasses were worn. Since then he has always considered the state of the refraction of the eyes as well as the state of the fundus in patients who have what may be called minor cerebral symptoms. He referred to another case he had seen with Mr. Carter, in which severe headache seemed to be fairly attributable to hypermetropia and astigmatism. He considered that cases of ocular palsy were, for the study of the nature of vertigo, the simplest of all cases. It was clear from these cases that vertigo was a motor symptom. It was not due to double vision, as commonly supposed, as it occurred on use of the paralyzed eyeball only—that is to say, under conditions in which double vision was impossible. Yet, as a matter of fact, vertigo, in physicians' practice at least, was not commonly met with in cases of ocular palsy. This was owing to the fact that, in the case of the sixth nerve, the patient, so to speak, dodged the paralysis by holding his head stiffly inclined; and in the case of the third nerve, to the fact that the paralysed eyeball was covered by the drooping lid. In the latter case the patient did not reel nor feel giddy, but if he closed the good eye, and if the paralyzed lid were upheld, he would, when walking, feel giddy, and might feel sick. The vertigo was due to "erroneous projection." There was a duplex condition; there was over-estimation of the range of a movement of the eyeball intended, but not really performed, and action of movements of locomotion in accordance with that false estimate, and thus over-action of them.

Dr. Poore said the case reminded him of some forms of chronic fatigue of the muscles, as in "writer's cramp," where the strain falls on certain muscles only. These after a time refuse their office, with pain, headache, etc. Mr. Carter's patient might be said to suffer from "reader's cramp."

Dr. Rasch referred to the case of a patient who suffered from vertigo and sickness, apparently from a plug of wax in the ear.

Mr. Carter, in reply, said he remembered the case referred to by Dr. Jackson, and as the patient promised to return if he did not improve, but had not again made his appearance. he concluded that he was well.—*Medical Times and Gazette.*

Read before the Clinical Society of London.

The Guaiacum Process for the Detection of Blood and Pus in Urine.

To the Editor of the Medical and Surgical Review (Australasian.)

SIR,—Your last issue contains a notice, taken from the *Medical and Surgical Reporter*, of a plan suggested by Professor Almen for the detection of blood in urine, which is as follows:—"A few cubic centimetres of tincture of guaiacum are mixed with an equal volume of oil of turpentine in a test tube, and shaken until an emulsion is formed. The urine to be tested is carefully added, so that it may sink to the bottom. When the emulsion and urine come into contact, the guaiacum resin separates, and falls as a fine white, dirty yellow, or green precipitate. If blood is present in the urine, the resin will have a more or less intense blue color, often almost indigo. In normal urine, or that containing albumen or pus, this blue color does not appear, and thus proves the absence of blood."

The guaiacum test for blood in urine is not new, as the following extract from a paper "On Colour Tests as Aids to Diagnosis," read by me before the Medical Society of Victoria, October 6th, 1869, will show:—

"The piece of paper I now show you contains traces of blood upwards of twenty years old. On applying tincture of guaiacum to it no change of colour will occur, but on adding a drop or two of ozonic ether, the guaiacum will be rapidly oxidized and acquire a bright blue colour. The test for pus is made by exposing a saturated alcoholic solution

of guaiacum to the air until it has absorbed a sufficient quantity of oxygen to give it the property of burning green when placed in contact with iodide of potassium. Perfectly sound tincture of guaiacum, such as should be used for the blood test, undergoes no change of colour in the presence of iodide of potassium. On this piece of paper there is a small quantity of pus. It is more than nine weeks old, and yet you will see that on moistening it with water and pouring a drop or two of the oxidized tincture of guaiacum over it, a clear blue colour will be produced. In operating on pus which has become dry, it is always necessary to moisten it with water before applying the test. . . . As aids to medical and surgical diagnosis, these tests bid fair to become of great service. The ease with which, by their agency, the presence of minute traces of blood and pus may be recognized in sputum and urine, renders it unnecessary for me to occupy your time in pointing to cases in which they may be usefully applied. I will mention, however, that in surgical cases where any doubt exists regarding the presence of pus in deeply seated parts, the use of a grooved needle and the pus-test would at once decide the question."

I generally carry these tests with me, and often find them of great service as aids to diagnosis. In examining urine, all that is necessary is to place a small quantity of it on a white plate and then add to it a little newly-made tincture of guaiacum, which alone should not undergo any change of colour; a few drops of etherial solution of peroxide of hydrogen—erroneously called ozonic ether—should then be added, when, if blood be present, a bright blue reaction will quickly take place. In testing for pus, the process is, if possible, still simpler. It is merely to add to a little urine, on another part of the plate, a few drops of the oxidized tincture of guaiacum, when, if pus be present, a blue reaction will be the immediate result. The reactions from these tests should be observed within a few minutes of the time of their applic:

has an affinity for atmospheric oxygen, and in the course of a little time begins to turn green, which would be apt to mislead.

I am, Sir, your obedient servant,

JOHN DAY, M.D.

Geelong, September 23rd, 1874.

—*Medical and Surgical Review (Australasian.)*

SURGERY.

On Subhyoid Pharyngotomy (v. Langenbeck, December 1st, 1869.

This operation, first suggested by Malgaigne in 1835, and first carried out on the living subject by Prat in 1859, was twice performed by the author for tumours in the throat. One case recovered: one died. The method followed is given by v. Langenbeck. The first step is tracheotomy, after which a sponge is used to plug the larynx and prevent the blood entering the trachea during the further steps of the operation. This done, the incision along the lower border of the hyoid bone is made, reaching from one omo-hyoid to the other. The fascia and sternohyoids having been divided, the thyrohyoid membrane and finally the mucous membranes are cut, and the epiglottis thus exposed is drawn forward by forceps. When the cut is properly made, the larynx is found to drop away to some extent from the hyoid bone. The superior thyroid artery and nerve are not in the way in making these incisions. When the larynx is thus drawn forwards the interior can be inspected, and any growths removed by the usual means. The author thinks the operation indicated where *(a.)* Foreign bodies in pharynx, situated in the pharyngolaryngeal cavity, cannot be removed by the mouth. [*b.*) Tumours in this part of the pharynx are seated with broad basis in the mucous membrane, or in the wall of the pharynx between the mucous membrane and the muscular layer. (*c.*) [illegible]rowths exist on epiglottis, aryteno-epiglottidean ligaments [illegible]enoid cartilages.—*Glasgow Medical Journal*

Amputation of a Child's Tongue.—

Prof. Azzio Caselli reports, in the *Bulletino delle Scien. Med.*, the case of a child nine years of age, which had wounded its tongue by a fall. A cancerous tumour followed, which in two years had extended over the entire right half of the tongue, except its summit; the tumour also invaded the central portion of the left half and the right half of the floor of the mouth. At the point where the tumour first made its appearance there was a large ulcer, from which flowed blood and ichorous matter. There was no ganglionic enlargement, but the child was anæmic and emaciated.

The patient entered the hospital September 1, 1873 There was then a very acute glossitis, consecutive to the mastication of irritating substances There was also some obstruction to respiration. In a few days, while the child was nourished by means of the œsophageal catheter, introduced through the nostril, the inflammation yielded to the bleedings and cold applications. On the eleventh day Professor Caselli commenced the removal of the entire tongue by Rizzoli's method, dividing the lower jaw at the median line, and applying a ligature. On the fifth day, as the tumour was slow in disappearing, he removed it by means of Chassaignac's *ecraseur* without the least hæmorrhage. At the end of thirty days the wound had entirely healed and deglutition was normal. Although three-quarters of the tongue had been removed, the child was able to pronounce *s* and *z*.—*New York Medical Journal.*

Sterility after Lithotomy.

Mr. W. F. Teevan has published ("Trans. Clinical Society," vol. vii., pp., 179, 180; and Trans. Path. Society vol. xvii. p. 186), four cases of this in males operated on by the lateral operation for stone. The stones removed from the bladders do not appear to have been large, and the subjects of operation were all young, two being infants. Mr. Teevan explains it by the operation, as usually performed, involving a laceration of the floor of the prostatic urethra, the ejaculatory ducts being torn across, or the orifices plugged with inflammatory exudation in the process of healing.—*Students' Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1875.

THE LATE WILLIAM SUTHERLAND, M.D.,

EMERITUS PROFESSOR OF CHEMISTRY, MCGILL UNIVERSITY.

We have to record the death of our friend and colleague, WILLIAM SUTHERLAND, M. D., Emeritus Professor of Chemistry, McGill University, which sad event occurred on Tuesday morning, the 9th February, 1875.

Dr. SUTHERLAND has for years been an invalid, although with remarkable tenacity he has followed the practice of his profession almost to the very last. He was a man of remarkable determination and will, full of kindness and gentleness. It was with a pang of regret that some two years ago he found it necessary to sever in a large degree those ties which bound him to his patients, reserving his remaining strength to give counsel and advice to those who sought it from him at his office.

Dr. SUTHERLAND graduated at McGill University on the 25th May, 1836. On that occasion he submitted to the Faculty of Medicine and defended publicly an inaugural dissertation on asphyxia. This treatise is exhaustive, the style clear and lucid, the language pure and powerful,—a faculty possessed by him in a remarkable degree to the end of his public career.

After graduation, the subject of this notice removed to Western Canada, and practiced his profession on the Niagara frontier. He was induced to return to Montreal, about the year 1840 or 1841, since which

period he has been engaged in the active pursuit of his profession in this city.

In the autumn of the year 1843, Dr. SUTHERLAND, in association with several other medical gentlemen, of whom Dr. MUNRO alone remains, established the "Montreal School of Practical Medicine and Surgery." This school was established ostensibly to give the French Canadian students an opportunity of hearing lectures on the Science of Medicine in their native tongue. It entailed much labour on the teachers, because they delivered lectures daily in both languages, so that two hours of the day were given by each ecturer for the instruction of pupils. The Chair of Chemistry in this school was ably filled by Dr SUTHERLAND. We speak of what we know, as during that exciting time we followed the lectures at McGill University, but frequently attended Dr. SUTHERLAND'S lectures, as we were personally acquainted with him and admired him as an able lecturer and kind friend.

We remember with what pleasure and instruction we listened to his clear and lucid explanations, his classic language, and with what interest we watched his rapid manipulation and accurate results. All those pleasing and attractive features were to be found in him as a lecturer. It was indeed the fact of his capacity in this respect which induced the authorities of McGill University at a later date to secure his able assistance as a teacher of chemistry. With the establishment of the school appeared the Montreal self-supporting Dispensary, an institution which was started to afford clinical instruction to the pupils of the school. It was found, however, that many persons able to pay took advantage of the dispensary, and sought aid and surgical and medical relief at this institution because it could be obtained there *gratis*. This was fully

recognized as an abuse and led to the discontinuance of the Dispensary. We notice the last entry in the books is dated 5th December, 1844, the first entry being 2nd October, 1843.

Almost at the time of the establishment of the School of Practical Medicine and Surgery, and of the self-supporting Dispensary, was there a first attempt made to publish a medical periodical in Montreal, and in April, 1844, appeared *The Montreal Medical Gazette*, a monthly journal of medicine and the collateral sciences, under the joint editorial management of the late FRANCIS BADGLEY, M.D., and the subject of this notice. It was most ably conducted, and on referring to its pages, we learn that the question of establishing a Canadian Medical Association was suggested and discussed in the columns of this periodical, and we believe that failure alone attended the attempt at that time because of the difficulty of travel. Without railroads and with inferior steamboats, Toronto was as far from Montreal in point of travel as is Liverpool at the present time.

The Canadian Medical Association was formed in the year of grace 1867, and received the unqualified support of the profession of this Dominion, extending from Halifax to the Pacific. But the idea was suggested and advocated a quarter of a century before by able editorial articles, which still remain to us, though the writers have both passed to their rest. But more than this, not only was the suggestion made in 1844 by Drs. BADGLEY and SUTHERLAND to establish a British American Medical and Surgical Association on the same basis and with the same objects as the Provincial Medical and Surgical Association of England, but later, in 1850, it appears, on reference to the records of the Medico-Chirurgical Society of Montreal "that "Drs. BADGLEY, SUTHERLAND and DAVID be named "a committee to submit to the members of the "medical profession of Canada a prospectus of the "objects to be attained by the formation of an

"Association to be styled 'The British American "Medical and Surgical Association,' the manner in "which these may be realized, and to request the "co-operation of the profession throughout Canada "in carrying out the scheme." The report of this committee, dated 27th February, 1850, and signed by Drs. BADGLEY, DAVID and SUTHERLAND, is to be found in the March number (1850) of *The British American Journal*, edited by the late ARCHIBALD HALL, M.D.

Dr. SUTHERLAND'S connection with the School of Medicine and Surgery ceased at the end of the session 1848-1849. Some time in the month of August, 1849, he accepted the Chair of Chemistry in the Medical Faculty of McGill University. From this date up to the year 1866 he continued to deliver his course of lectures on that branch in connection with McGill University, and from his excellent qualities as a lecturer contributed largely to the success of the University. From this time his health has gradually failed. From what was at first regarded as a laryngeal affection, tubercular phthisis was developed which, at his age, was slow in its advance, and on Tuesday, the 9th February, he breathed his last, in the sixtieth year of his age. No *post mortem* examination of his body was made, nor was it deemed necessary.

Dr. SUTHERLAND was a fluent speaker, an original thinker. Though latterly he did not record his observations, yet while in health he was a valuable and working member of the Medico-Chirurgical Society of Montreal, and twice held the highest honour in the gift of his professional brethren, in being elected their President. He was a general favourite, highly respected, and looked up to by his junior *confrères*. His opinions on subjects of a medico-political aspect were broad and liberal. In private life he was esteemed highly; his manner, though firm, was kind, and his punctuality and attention to the business of his profession enabled him in the decline of life to enjoy that quiet and solace of opulence which is not usually accorded to the medical practitioner.

THE WESTERN HOSPITAL.

We observe, that a site has been secured and money subscribed to build a Hospital in the Western division of this city, and we believe that arrangements are in progress for the purpose of carrying out the scheme. In all honesty we cannot say that this is a necessity however anxious we may be to see a Hospital built on a modern plan. The question of hospital accommodation is a difficult one to deal with, it is not alone the money to be obtained for the erection of suitable buildings, that has to be considered, but to be a useful institution it will require liberal support to maintain it in a condition of efficiency. The want of a convalescent home or a hospital for chronic cases of disease has long been felt. The subscribers to the Western Hospital are with few exceptions interested in the successful maintenance of the Hospital already in existence. What may we ask would the city of Montreal do without the Montreal General Hospital. We all at times individually feel its importance and if in any respect it is to suffer by division of interests what will be the result.

A large number of sick poor are obliged to take advantage of admission to the wards of the Montreal General Hospital who would be far better elsewhere if an institution suitable for their ailments existed.

We are not disposed to throw cold water on the laudable efforts of the promoters of the Western Hospital as we think there is ample room for such an institution if its objects are to be in common with the institution already in working efficiency. There is no actual need for two institutions with the same objects. To speak more plainly there are a large number of patients constantly occupying beds in the Montreal General Hospital whose cases are of a chronic character, a number of persons suffering from consumption that would be benefited and lives that would be prolonged if placed under more advantageous circumstances. In London, England, there is to be found the Brompton

Hospital devoted exclusively to the treatment of cases of consumption. The general hospitals are reserved for cases of acute disease and when cases become chronic or are likely to be benefitted by change they are removed to the institution at Brompton. In connection with this institution there is in process of erection an hospital for the removal of patients to the more southern parts of England at or near some sea-side watering place so as to give those patients who are likely to be relieved the benefit of change of air. This is a scheme which is not required in Montreal or at least if required would not perhaps be judicious but a hospital to relieve the Montreal General Hospital of many of its sick poor would be a great boon. It would be well for the promoters of the Western Hospital to consider the question in all its bearings and not forget the old maxim that "union is strength." The two institutions uniting and working in harmony, having one object and desire, the mutual aid of each, appears to us to be the wisest plan, as there is truth in the text that a "house divided against itself cannot stand."

DESTRUCTION OF THE BEAUPORT LUNATIC ASYLUM BY FIRE.

It is with regret we record the destruction of the greater part of the female wing of the Beauport Lunatic Asylum at Quebec and in recording this catastrophe we cannot but express our astonishment that so few lives were lost. Great credit is due to the superintendent and his assistants for having so coolly and deliberately managed the unfortunates under their care during a time of such peril and excitement.

We give below a report taken from the telegrams of the day.

QUEBEC, Jan. 30.

One of the most fearful conflagrations which it has been our lot to record, occurred last night at the Beauport

Lunatic Asylum. About half-past six an alarm of fire was given, and it is supposed that the cell where it originated had been set on fire by one of the female patients, a woman of very vicious character, named Marie Breton. Her conduct had been such that she had to be put in the cells, and she vowed that she would have her revenge out on the "cursed place," as she termed the asylum. It is very certain that she was treated with the utmost kindness and consideration, but at times her outbreaks were such that she had to be placed under the severest restriction. Whatever may have been the destructive designs she formed, it seems almost certain that she suffered a horrible fate in the flames she is supposed to have kindled. It is supposed that she placed a candle under the bed and then shut the cell door. This seems to have occurred when the inmates were at prayers. There was a terrible scene in the western wing. By extraordinary exertions the female patients who had been in the south-eastern wing had been conveyed through the crowds to the western wing, and there they were cooped up, several hundreds of them, until sufficient means could be found of conveying them to the outlying male department of the institution. In the craze of fright the poor creatures became almost rabid, and when they were huddled together their frantic talk and hysteric shrieks were pitiable. This was about nine o'clock. The room was as full as it could hold, and it required every exertion the nurses and guardians could make to maintain anything like quiet in the ward. Some were sobbing piteously, some silently swaying to and fro, some passionately weeping, some singing triumphal songs and rejoicing in the work of destruction going on around them, some shrieking, howling and blaspheming, some calm and collected, as if fully apprised of the danger impending over the building Strange to say, one of the worst cases in the female ward entirely recovered her reason in the panic, and is now as sane as possible. When the alarm was given Madame Vincelette took it very quietly and notified her husband, who proceed-

ed to remove some of the patients from the cells to the ward in the western side; but the smell of smoke acted upon some of them as that of blood upon a tiger, and they nerved themselves for the fight. They hit, tore and scratched, and became as refractory as possible. The fire was spreading with frightful rapidity, the corridors filling with suffocating smoke and heat. The unfortunate inmates were noisy, intractable, and they would not leave; they hid under beds, wrapped up in blankets or sheets, and required extraordinary strength to extricate them. The flames were dancing through the corridors, still they hid, and despite the efforts made to save them, it is believed that three inmates perished in the conflagration. Three times Mr. Vincellette broke down under the load he was carrying, and each time was he rescued by faithful coadjutors. On the last occasion he fell from the third to the second story in endeavoring to save two women; he cut himself seriously, and dislocated his right elbow. He was rescued at the point of suffocation by Hypolite Lassard and conveyed to the male ward. But all could not be saved. There were those who put themselves beyond the reach of human help, and went down to the death they courted. These were Miss Bazin of Montreal, Miss Prussien and Miss Breton, left behind in the burning building—at least such is the belief of the Superintendent and his wife—and it is presumed that they were burned or suffocated to death. The supposition as to their disappearance is certainly a most painful one, and there seems to be circumstantial evidence enough to prove that they died in the flames.

After nine o'clock the Mayor and members of the Council were on the ground and every exertion was being put forth to save life and property. The Mayor very properly put himself in charge of the Corporation Fire Service and dispelled whatever doubt there may have existed of his being perfectly competent to deal with fires. But the pillage became something extensive until finally a detachment of the 8th Battalion had to be sent for. The amounts of insurance effected on the building have not transpired but it is said that they are very heavy.

CANADA

MEDICAL & SURGICAL JOURNAL.

Analysis of Milk. By GILBERT PROUT GIRDWOOD, M.D., M.R.C.S., England. Professor of Practical Chemistry, McGill University.

For some time past we have had a by-law of the corporation, professedly intended to prevent the sale of adulterated milk, and for punishing those who infringe the law. This has been altogether a dead letter, and productive of no result; the new inland revenue act against the adulteration of food and drink which was passed last year has now come into force. The difficulty of efficiently carrying out any such law, is the necessity for exactness in the determination of the standard of excellence as a point of comparison. In a city like Montreal, where a large supply of milk is required, there must be both large and small suppliers; one may have a cow giving very rich milk, another very poor, and there may be difficulty in determining the value of the milk given by each, and at different seasons, and hence determining whether the milk is adulterated or not.

For the purpose of trying to give a standard I have been engaged since last September in making a series of analyses of milk. The milk I obtained from my own cow which is stall fed, upon hay, 2 bundles a day; 1 small bran mash night and morning, and such scraps from the house as are fit for her; and, from milk supplied to me by Mr. de Bellefeuille MacDonald, of the Grey's Creek farm, who keeps together 150 cows so that what I received from him may be taken as an average of milk from that number of cows. Mr. MacDonald, whose cows I have seen here in

Montreal, are fed almost exactly as my own ; but besides the 150 in town, he has 150 more cows at his farm near Cornwall, so that practically the average is from 300 cows. That from my own cow is I know a richer milk than is usually met with.

These examinations have been made, from time to time daily, during a period of seven months, and the average as given, is the result of the mean of these observations, they are recorded in a tabular form and compared with the analysis of milk as given by different authors, I have not taken milk from animals fed on grass, as my object has been rather to arrive at a standard of what milk should be as supplied during the winter months than of what is obtained during the summer. I am not prepared to say what will be the average for the summer months,when cows are fed upon grass at pasture but, even during the summer, numbers of cows are fed in stall upon hay. I purpose however, extending my observations during the coming summer and will give you the results so that if any alteration becomes necessary for a summer standard it may be made.

Considering that milk contains all the constituents necessary for the growth and development of the animal and that too in a very easily assimilated form, that it forms the principal food of children, and of sick persons, the only food of young infants, and that the due proportion of each ingredient is undoubtedly arranged by nature so as to be properly adjusted the one to the other, so as not to overload one portion of the body at the expense of the remainder it becomes of paramount importance, to the well being of children and the sick, that the proper equilibrium of food should be kept up.

I have divided the food contained in milk into four heads for the purpose of simplifying analysis and conparison, namely, water, butter, or fat, the heat producing or respiratory element of milk. Cazeine, Sugar, &c., which principally supply nutritious elements or elements used in digestion and last salts or earthy constituents used in the formation of the skeleton, and in the process of digestion.

The process adopted in these analyses has been the actual weighing of each of these four classes of constituents.

In the first place the specifiic gravity was taken. One thousand grains accurately weighed out, and carefully evaporated to dryness in a platium dish and weighed repeatedly till weight remained constant, the weight of dish subtracted yields the total solid constituents in 1000 grains, the difference between this weight and 1000 grains is the water lost by evaporation.

Residue exhausted with Ether is deprived of all the butter, the residue again dried and weighed gives the Cazeine Sugar, &c., and Ash.

Cazeine Sugar, &c., burnt off the residue is the Ash.

The Etherial solution evaporated till all Ether is gone, and residue weighed gives the amount of butter.

Of course this process may be still further increased by ascertaining the properties of the component parts of the Ash such as the quantities of Phosphoric acid, Lime, Chlorine, &c., the separation of Cazeine, Sugar, &c., but for purposes of ascertaining the purity I think the above is sufficient, at any rate at present; when ingenuity in adulteration is carried further, other more elaborate analysis may be necessary.

TABLE OF COMPARISON.

Name of Authority.	Professor Miller.	Dr. Atfield.	Sir Robert Kane.	Dr. Girdwood.	Dr. Girdwood. McDonald supply.
Water	874.00	864.00	859.10	828.90	848.00
Butter	40.00	36.00	39.30	38.58	31.60
Cheese, Cazeine, &c.	79.00	93.00	98.70	123.79	114.00
Ash	7.00	7.00	2.90	8.73	6.40
Total	1000.00	1000.00	1000.00	1000.00	1000.00
Specific Gravity	1030 to 1035	1034.00	1034.80	1034.60	132.80

In the last column is the result of the average of 150 cows—during a period of 7 months, the variation being so light as not to be worthy of note.

I think from these results that for stall-fed cattle the average of the last column may be taken as a practical standard for the autumn and winter months; at any rate any deviation from this, say in reduction of fat, would indicate the abstraction of cream, and the milk should be sold as skimmed milk, which for many purposes is as good as if the cream were left in, but under the new act such abstraction will be punishable. In like manner any decrease in the quantity of cazeine or salts would indicate the addition of water, the specific gravity alone can give but little information as to the purity or otherwise of the milk. Nor does the quantity of cream alone give an idea as to whether adulteration has been practiced, but the four conditions taken together are likely to be near the proper result.

Since writing the above, I have received The "Chemical News" for February 5th, wherein is a paper on milk, by C. A. Cameron, M.D., Professor of Hygiene in the Royal College of Surgeons, Ireland, who gives the result of his experience in Dublin milk, as per 1000 parts:

Water, - - -	870.00
Fats, - - - -	40.00
Cazeine, &c.	83.80
Mineral, - - - -	06.20
	1000.00

The same number also contains a report of the proceedings of the Society of Public analysts who establish the limits for the constituents of milk as follows:

"Milk shall contain not less than 2.5 per cent of butter fat." These limits are given as the minima of quantities. I should be harder on the milk vendors, and require a higher standard. And if the cow will not give a milk up to the standard, it were better to fatten her for the butcher, and raise one that will give richer milk, this will tend to improve the breed of cows.

Division of the Isthmus to relieve Dyspnœa in certain cases of Bronchocele. By SIR G. DUNCAN GIBB, Bart., M.D., LL.D., Physician to Westminster Hospital.

In the course of an experience of many years several cases of enlargement of the thyroid gland, affecting one or both of the lateral lobes and implicating the isthmus, have come under my observation. When the isthmus is enlarged, there is usually present a feature of great significance that is the precursor of future mischief—namely, the presence of dyspnœa from pressure upon the trachea, to which very soon it becomes strongly adherent. If not relieved by treatment, the lateral lobes—which in their enlargement sometimes spring from the isthmus itself—may extend on either side of the trachea itself and completely encircle it. The consequence of this is that the tube is compressed laterally, and its form becomes oval, with a very narrow passage to breathe through, which sooner or later ends fatally. An instance of that kind in a young Oxford man was under my observation in 1869, in whom the enlargment was attributed to a cold caught whilst sleeping with the window open. The progress of extension around the trachea was rapid; the compression was so great that fatal dyspnœa occurred in January, 1870, and after death a narrow oval fissure was found to be all that the patient could breathe through during life. Tracheotomy was ineffectually attempted by a skilful hospital surgeon, and, as no relief was afforded, the belief was entertained by a physician of eminence, who saw the case *in extremis*, that an aneurism might be present to account for the symptoms. As I had given the opinion to the father that nothing was wrong beyond the bronchocele and its influence on the trachea, an autopsy proved that only such really existed, and the heart and other organs of the body were healthy. In stating this no blame whatever could be attached to the physician who saw the patient in the hour of his extremity. I could cite other examples, where the disease was gradually progressing towards the same result, and no doubt

they are familiar to those in the habit of seeing bronchoceles. However, in some of our hospital museums the preparations themselves show how hopeless are all means of cure when once the trachea is grasped by the tumour. I had long thought over the matter, and came to the conclusion that the only remedy in such cases was to remove or divide that portion of the bronchocele which was in contact with the trachea itself—namely, the isthmus,—*before* it had commenced either to encircle the tube or had become too firmly adherent to it. This last summer the opportunity was afforded me to have this practice tried, and I am happy to say with the best results. The symptom that was the most urgent was dyspnœa, owing to the pressure of the enlarged isthmus, which had formed a distinct tumour over the trachea nearly the size of a walnut. This was adherent to the deep fascia over the trachea, and moved up and down with the tube and thyroid cartilage in the act of swallowing. Great distress and discomfort, and feelings of the most miserable and desponding nature were almost constantly present, invariably aggravated by attacks of recurrent dyspnœa. I was satisfied the lateral lobes were dipping backwards, and in a few weeks or months would have irretrievably compressed the trachea, as in the case of the young Oxford man. The details are briefly these :—

Margaret H——, aged twenty-nine, from Shropshire, a cook some years in London, was sent to me on April 27th, 1874, complaining of great discomfort and tension about the neck, and dyspnœa, from the presence of an enlarged thyroid gland, that had been enlarging on both sides of the neck for two years, but especially so on the right side. She described the feeling about the neck as a smarting one, and the swelling she said "draws the neck"—i. e., made the neck feel very tense, as if tied round with something. This had caused nausea and vomiting for some ten days. She was most desponding, quite pallid, and had changed from a stout to a thin girl. The goitre was distinctly prominent on the right side, and not so visible on the left, but the

enlargement was unmistakable on both sides, and the intervening isthmus was continuous from one lobe to the other, and decidedly enlarged, taking the form of a distinct rounded, somewhat projecting tumour over the trachea. In swallowing she felt as if something were pressing on her windpipe, and the isthmus moved up and down synchronously with the thyroid cartilage, showing that it was not only in close contact with the trachea, but possibly attached to it. She was treated by a combination of the iodide and bromide of ammonium with other adjuvants, internally, and an ointment externally of the bromide of lead. She greatly improved, and the swelling on the right side of the neck became freely movable; the trachea could be more distinctly traced from below upwards, the isthmus was decidedly less prominent, and all the other symptoms referable to the breathing got better. She took, for a short time afterwards, the bromide of ammonium and citrate of iron. Her mistress finding she was in delicate health, declined to keep her, and all the old symptoms returned with great tension and hardness of the isthmus. I told her the nature of her complaint, and stated she might now and then improve, but the cure of the attacks of dyspnœa was impossible without the removal of that portion of the tumour over the windpipe. To this she consented, and was accordingly admitted into Westminster Hospital on July 2nd, and placed under the care of my colleague, Mr. Holthouse. I had previously explained my views to him, which he perfectly comprehended, as we had discussed the matter several times.

On the 11th, after chloroform had been given, an incision was made through the integuments in the median line over the trachea, about two inches long, the superficial fascia and then the deep were divided on a director, and, finally, the surface of the tumour was exposed, which in size approached that of a flattened walnut. The isthmus on either side of this was more slender and smaller in bulk than the tumour which permitted of a strong ligature being placed on either side of it with the aid of an aneurism needle.

The isthmus was then freed to the inner side of each ligature, divided, and wholly removed, the trachea being observed to be quite free. There was not much bleeding, although several small veins ramified on the surface of the tumour. Subsequent examination showed the removed isthmus to be partly cystic in its character. for on section, one cyst especially was divided, giving exit to some fluid: the remaining portion looked like degenerated glandular tissue.

By the 14th the wound was nearly healed; on the 17th the ligature came away. A few days later the wound was perfectly healed, and she left the hospital, feeling no inconvenience about the trachea in breathing or swallowing. The relief afforded by the removal of the isthmus may be described as truly wonderful.

On the 16th November she called upon me in perfect health; she had got stouter, had married, and there was not a trace of her old symptoms. The trachea could be felt uninterruptedly free from the root of the neck upwards, and the enlarged thyroid gland on either side seemed to have receded from the median line, and was less prominent.

The results in this case fully justified the hopeful view entertained of the operation, and it was not long after that another opportunity was afforded of again trying its effects, under circumstances somewhat differing and even more unfavourable.

Alice D——, aged seventeen, a healthy-looking girl, was sent to me by my friend Mr. M. W. Chambers, of Sutherland-street, Warwick-square, with general swelling of the entire front part of the neck, especially above the clavicles, from enlargement of the thyroid gland, which, it appeared, had existed since her birth. Whilst there was an unusual fulness of the neck, there was not the great prominence observed in most cases of bronchocele; yet the swelling was traversed by numerous enlarged and tortuous veins, through its extension behind the clavicles and pressure upon the subclavian and other deep-seated veins. This gave rise to

some facial turgescence and a ruddy complexion. The isthmus was felt continuously from the one side to the other, and was closely applied to the trachea, giving rise to occasional dyspnœa, dysphagia, laryngeal cough, and general discomfort, which had induced the girl's mother to seek advice for her. She was admitted into Westminster Hospital under my care, and put upon preparations of iodine internally, and the use of the bromide-of-lead ointment, as in the first case. She certainly improved, and the swelling became softer. But in the early part of December she had symptoms that simulated an attack of laryngitis with such extreme dyspnœa for two or three nights that the house-surgeon was called up to open the trachea. Fortunately relief was obtained without resorting to that measure, and she got better; but as it was hopeless to expect a cure, or even permanent relief, whilst this enlarged isthmus remained, I concluded that surgical interference might do more than medicine, and requested Mr. Holthouse to see her. As everything was favourable he consented to remove the isthmus. On the 15th December she was narcotised with chloroform, and as she had eaten some food shortly before, this was vomited, and during the act the prominent isthmus was seen to move up and down synchronously with the thyroid cartilage, pointing to close and firm attachment to the trachea. An incision was made one inch and three-quarters long below the thyroid cartilage, which divided a small vein that had to be tied; another, rather large, coursed upwards from right to left, which was avoided. The superficial and deep fascia being divided upon a director exposed the isthmus, which suddenly cropped up like a hernial tumour. This was found to be fully an inch wide, proportionately thick and firmly attached to the trachea. Mr. Holthouse cautiously detached it by means of curved scissors, and then passed an aneurism needle under it, armed with a double ligature permitting it to be tied in two places, as wide apart as possible. As these were likely to become detached in the event of division of

the isthmus, it was considered prudent, with my concurrence, to leave them in to slough out, and thus avoid the risk of hæmorrhage. The wound was closed and the patient conveyed to bed. Without giving the progress from day to day, it may be stated that everything went on well, the ligatures came away in reasonable time; there was some free suppuration of the portion of the isthmus between the ligatures, and finally the wound healed. The general turgescence of the face seemed to have wholly gone, and the decided prominence of the neck became less, the circumference having become reduced from 14½ to 13½ inches. There was a disappearance of several of the cutaneous veins, except at the lower part nearer the clavicles. The relief to the general tension across the neck was the chief point gained, and no discomfort was experienced such as had been present before the operation. This can be well understood, on reflecting that the isthmus was then exerting a pressure upon the trachea and adjacent parts like a strong band tied around the neck.

That the results will be as favourable here as in the first case there is good reason to believe, but I should prefer as a rule a good large portion of the isthmus to be removed to simple division, as there is less likelihood of any subsequent adhesion to the trachea; and as to the hæmorrhage from a divided portion of the gland, I think the danger to be feared from it is much overrated.

Although the enlarged thyroid gland has been wholly removed several times with success, and quite recently by my friend Dr. Fenwick of Montreal, by Dr. Wolfred Nelson of the same place, and by Dr. Beaumont* of Toronto, yet I believe that this is the first occasion in which the isthmus has been either wholly removed or divided, at my suggestion; and the extreme importance of the subject is my excuse for bringing it before the notice of the profession. I have no doubt that this new remedial measure will receive a fair trial, and I feel confident that it will become one of extreme value and importance in a very dangerous class of cases.

Bryanston-street.

* Sir Dominic Corrigan is in error; it was Dr. Hodder of Toronto, not Dr. Beaumont, who removed a part of the Thyroid body.—Ed.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Paralysis Agitans under the care of W. Wright, M.D., Professor of Materia Medica, McGill University. Reported by Mr. HERBERT L. REDDY.

A. McD., born in Glengarry, Canada West, aged 58, a married man with eight children, was admitted into the Montreal General Hospital under the care of Dr. Wright on the 4th December, 1873. He is a large heavily built man, height 6ft 3 in., weight about 220 pounds.

Family history.—His father enjoyed good health up to his 70th year when he was struck with hemiplegia on his right side. After 3 years he partially recovered but died soon afterwards from old age. Mother was healthy. Has two brothers and three sisters, all are now living and healthy as far as he knows. Has been living near Cornwall, occupation whilst living there has been that of a farmer, formerly in the winter months he used to cut timber and drive it in the spring. He was thus employed during these months for 9 years, but he has not been so engaged for the last 19 years. In the spring whilst driving the timber he was continually subject to wet. About 8 years ago he drank pretty hard, but has been moderately temperate of late. He has enjoyed good health up to about 5 years ago, being only occasionally troubled with rheumatism in his hip and shoulder joints. About 5 years ago his right arm began to get weak and painful and constantly trembled. These symptoms gradually increased until he lost almost all power in the arm, from this it went to his left arm, and from that it has since spread all over the body; the arms being the most affected. When he first noticed it he was working on a railroad in Nova Scotia, and thinks that these symptoms were induced by sleeping in a damp cold bed.

Present symptoms.—General trembling and weakness accompanied with nervous excitability and loss of memory. Any noise or even talking to him increases trembling. He complains of soreness and pain in the back. The pain complained of is situated over the crest of the shin, these pains occur at short intervals and are most severe when in the recumbent position. He has no pain along the spine, he sleeps moderately well, being only occasionally awakened by the pain. He is free from trembling when asleep. His bowels are generally rather costive. He walks without keeping his eyes on the ground as he would were it locomotor ataxy. The only thing noticeable in his walking is a hesitancy and sinking at each step due to weakness of the knee joint, he can walk with his eyes shut but is unable to turn very quickly. His eyesight has not been very good since he first noticed the disease. Stimulants such as brandy seem to have no effect in stopping the trembling motion as it generally does in this disease. Of late these symptoms have become so troublesome that he was persuaded to come here in hopes that something might be done. He has been under the treatment of several doctors in the country from some of whom he believed that he derived slight benefit.

Dec. 4th.—It was determined that the alkaloid hyosciamia would be likely to prove beneficial. A couple of drachms were procured from Hamburg. When it arrived it was a liquid very like sherry in appearance, it had a peculiar smell and a very bitter taste. The following prescription was then ordered.

Hyosciamia gtt i
Aq ad ℥vi
℥i tid.

Dec. 6th.—The electro-magnetic machine was used with a view of ascertaining the effect on the paralysis. The following are the results. When the poles were applied to the arms the trembling was very much increased in both

arms and head; but when applied to the legs it did not seem to affect them.

Dec. 8th.—Amount of Hyosciamia in his mixture was increased.

Hyosciamia gtt ii.
Aq ad ℥vi.
℥i. tid.

Dec. 11th.—The dose of Hyosciamia was increased from the one twenty-fourth which he was getting to the one twentieth of a drop. The trembling is evidently much benefitted already although only 7 days under treatment.

Dec. 12th.—Dose was increased to 1-10 of a drop for each dose. He has noticed that he sleeps more heavily than he did and does not dream being greatly troubled with dreams before he was admitted. His pulse which was not in any way excited when he entered was found to be 56 to-day.

Dec. 17th.—Dose was increased to 1-5 of a drop. He appears to be steadier in his movements than when admitted. This dose being much larger than could possibly have been given with the pure alkaloid it was determined that it must be a very inferior article as it was tried on a cat with the following results. One drop placed on the tongue of a cat produced no effect whatever, after a few days the cat was again caught. This time 12 drops were given without any effect. The tincture of the British Pharmacopeia was ordered.

Dec. 24th.—Tinct Hyosciami ℥i. ss.
Aq ad ℥vi.

Dec. 29th.—Was able to pull on his trowsers and waistcoat without help which he could not do before. His pulse ranged from 52 to 60.

He left the Hospital to-day. He thinks he is very little better than when admitted.

In the above case the Hyosciamia was obtained at great expense from Hamburg, when obtained it was not unlike sherry wine. The dose was increased from 1-24 of a drop to 1-5. It must have been very impure for that amount of

the pure alkaloid could never have been given without producing some effect. In this case there was little if any improvement noticed. It was determined to experiment on a cat with it. At first one drop was given and produced no effect then 12 drops and after that amount the cat was as lively as ever.

Dr. Scoresby-Jackson mentions that sheep, goats and cows can eat the leaves of the Hyosciamus plant with impunity and may it not be possible that cats enjoy a similar immunity ?

Three Cases under the Charge of Dr. Fenwick. Reported by Dr. CAMERON Assistant House Surgeon Montreal General Hospital.

The following cases are of interest from their serious nature, and favorable results.

No. 1.—Auguste De Chose, a French immigrant, a painter by trade, was working on a scaffold at Pointe-aux-Trembles on the 5th of October last ; while endeavoring to shift his position, he slipt and fell to the ground a distance of fifty-five feet. He was picked up in an insensible condition but was not conveyed to the hospital for four hours. On arriving there his right elbow was found to be very much swollen and deformed and upon careful examination, it was discovered that both the radius and ulna of the right arm were thrown backwards, neither the coronoid nor olecranon process being broken ; the dislocation was complicated however by fracture of the internal condyle of the humerus which was quite movable and gave distinct crepitation. With great difficulty chloroform was given owing to the nervous excitable condition he was in ; the dislocation was reduced and the arm placed comfortably upon a pillow in a semiflexed position. Iced lead lotion was applied over the whole arm, the joint itself being packed in ice. Opiates were administered as required. The ice was kept up steadily for five days, when the swelling had become

so far reduced that an internal rectangular splint was lightly applied. Cold lead lotions to the joint were still continued. On the 20th he was allowed up with his arm in the splint supported by a sling. Five weeks after the accident passive motion was begun. It was excessively painful at first and elicited all the grimaces and contortions so characteristic of the excitable Frenchman. A stimulating liniment was ordered, and by dint of constant frictions and the daily use of passive motion, the patient was able to leave the hospital on the 2nd of December with a very excellent arm. Very little deformity existed and the motions of the elbow joint were almost perfect. He is at work now in the city and with the exception of a little stiffness, the right arm is as useful as ever.

No. 2.—George Anderson, æt 31, carpenter. was admitted to hospital complaining of great dyspnœa and cough. He had an attack of acute pleurisy, three months before, and had been losing flesh very rapidly ever since, and had certainly become extremely emaciated. Upon examining his chest, expansion movement on the right side was imperceptible, the whole of the right chest seemed distended,although no bulging existed in the intercostal spaces. Upon measurement, the right side was found to be two inches larger in circumference than the left. Upon percussion an absolutely dull note was elicited in front up to the lower margin of the second rib; behind the dullness was much less, being confined altogether to the infrascapular region extending to within an inch of the inferior angle of the scapula. The respiratory murmur was almost entirely absent in the dull region, and was feeble even in the upper part of the right lung. Exaggerated breathing was present on the left side. Fluid was evidently present in the right side, but the peculiar feature in the case was that the dullness extended to the lower margin of the second rib in front, while behind it reached only to below the inferior angle of the scapula. Dr. Fenwick decided to tap the right side with the aspirator, and on account of the large area of dullness in front, he

introduced the needle below, and a little to the outer side of the right nipple, at the fifth interspace. He succeeded in drawing off 54 oz. of serous fluid, which, towards the last became slightly tinged with blood. When this quantity had been abstracted, the dragging feeling about the lung became so great, and the cough so annoying, that Dr. Fenwick determined to desist. Three weeks afterwards he again used the aspirator and drew off 35 oz., which towards the end became gelatinized. The patient was kept quiet in bed for some days. Quinine, Iron and Cod Liver Oil were prescribed with a good nourishing diet. The patient become stronger, the cough less irritating, and he began to regain flesh. The right side became less prominent, measuring when he left Hospital only one inch more than the left. The breathing though still very feeble, was more distinct than before, and the dullness in front was reduced by about two finger-breadths. The dyspnœa was greatly relieved, and the night sweats completely disappeared.

No. 3.—J. L. aged 37, was admitted to hospital, complaining of obstinate constipation and great swelling of the abdomen accompanied by severe paroxysmal pains. Her face was covered with an eruption of acne.

Upon enquiring into her history it was found that she had aborted at the age of twenty-three and had flooded profusely, since which time her menstrual functions have never been properly performed. A history of syphilis before abortion was pretty clearly made out. The constipation came on gradually and she was in the habit of taking purgatives regularly for several years. About two years ago, she took as usual a dose of senna and salts, when after a very slight motion, she was seized with sudden faintness and desire to vomit; her abdomen swelled up considerably and her sufferings were severe. Since that time her bowels have never been freely moved. Castor oil seems to be the only medicine she can take at all, and its effect is peculiar; for shortly after a dose of oil she passes a small quantity of

thin semipurulent fluid containing a few small round scybalous masses; if now the dose be repeated, nothing more is passed but she immediately swells up and her sufferings become intense.

A careful examination of the rectum was made and no constriction was felt; and the long tube was passed up into the bowel without meeting any obstruction. Various purgatives were given after her admission into hospital, but with no very satisfactory result. Ordinary injections failed; the long tube was successful for a time in producing a stool which was always copious and bloody and contained a number of scybala. Oil and turpentine were used with the long tube but even they failed after a time; warm olive oil was then injected through the long tube but in a few days it too became ineffectual. At last, all injections failed and were stopped and she was put on the following treatment.

Pot. Iod. grs viii.
Ext. Sarsae fld. ℥i.
Aquae ad ℥ss. ter die.

also Ext. Bellad. gr ¼ in the form of pill night and morning.

In a few days she had a natural motion, and swelling and pain were greatly relieved. She persisted in this treatment for some weeks and finally her bowels became quite regular, her pains and discomfort gradually disappeared, and strange to say the acne, which had lasted for eight years and which had been growing worse and worse till she was quite disfigured, began to fade away, and she left the Hospital quite a respectable-looking woman. The connection between acne and a constipated state of the bowels was in this case very clearly exemplified.

There may be some doubt entertained as to the cause of the disappearance of the acne; from the history of Syphilis it may possibly have been due to the effect of the Iodide of Potassium.

Reviews and Notices of Books.

A Guide to the Practical Examination of Urine. For the use of Physicians and Students. By JAMES TYSON, M.D., Hospital Lecturer on Pathological Anatomy in the University of Pennsylvania, &c., &c. With a plate and numerous illustrations. Philadelphia: Lindsay & Blakiston, 1875.

Dr. Tyson has already published two carefully written and useful works, "The Cell Doctrine," and "An Introduction to the Study of Practical Histology," and the present hand-book will supply the want which many practitioners must have felt, of a work, which in a moderate compass might give sufficient information on this important subject. Although we have already valuable works on the Urine, yet some are too large for ordinary clinical use, while most of the smaller hand-books, with the exception of the admirable "Guide to the Examination of the Urine," by Dr. Wickham Legg, are too meagre in detail to be really trustworthy. Useful as Dr. Wickham Legg's work has been found by many a practitioner and student, yet we think that in the present manual, which is almost as convenient in size, will be found much useful information, which Dr. Legg, from the nature of his work, was obliged to omit, and which can only be obtained by consulting the more bulky volumes on the subject. The author gives the modes of approximate estimation used in Germany, drawing the details of them from the treatise of Hoffmann and Ultzmann, and many of the cuts of urinary deposits are from Harley's valuable work. The part devoted to urinary deposits is well and carefully written, and the illustrations are numerous and well executed. Altogether, we may safely say that in the 177 pages, of which this little work consists, will be found more useful information and practical instruction than in many a more pretentious volume, and to the busy practitioner and student it will be invaluable.

Cyclopedia of the Practice of Medicine. Edited by DR. H. VON ZIEMSSEN Professor Clinical Medicine in Munich Bavaria, Vol. 1. Acute Infectious Diseases by Professor Liebermeister, Professor Lebert, Dr. Haenisch, Professor Heubner and Dr. Oertel. Translated by Drs. Fitz, Putnam, Harlingen, Whittaker, Schauffler, Delafield, Bridge, Satterthwaite, Stimson, Emerson and Normand Smith. Albert H. Buck, M.D., New York, Editor of American edition. 8 vo. pp. 708, N. Y., William Wood and Company 27 Great Jones street, 1874.

In the circular announcement which we received from the publisher and which we noticed editorially in the August number of this Journal we were under the impression that Vol. 1 of the Series would embrace the subject of Public Hygiene, and diseases of special trades and professions to be edited by Prof. Giegel and Drs. Hertz and Merkel. A change has however been effected as Vol. 1 which is before us consists of a series of exhaustive papers on "Acute Infectious Diseases." This volume is under the Editorial conduct of Hugo W. von Ziemssen Professor of clinical medicine at the University of Munich, Bavaria. In the Biographical sketch of Prof. Ziemssen which appears on the first pages of this volume we notice that he has contributed largely to medical literature not only as a writer in Virchow's Arch: but that in 1862 he founded the Greifswald Medical reports which he edited for two years when he responded to a call from Erlangen where he maintained the position of Clinical Professor of Medicine up to the spring of last year when he assumed the clinical professorship in Medicine and director of the City General Hospital in connection with the University of Munich.

The first paper is from the pen of Professor Liebermeister the subject being Typhoid Fever. The author gives a general introduction to the infectious diseases, in this he its the difficulty of tracing infectious diseases to the of organized disease germs as it cannot be re-

garded as among well authenticated facts that all infectious diseases depend for their origin on special disease germs. This statement is alone theoretical, but reasoning from analogy we are led to believe in the existence of these germs although scientific investigation has failed to satisfactorily demonstrate them. Nevertheless it must be admitted that a peculiar feature of infectious diseases is the fact that they resemble the effects produced by a poison proper—that is a constancy in the relations between cause and effect. This differs in a marked manner from all other diseases. The poison of Typhoid fever always develops Typhoid fever. No other disease can result, by subjecting an individual to exposure to that poison. On the other hand several persons are exposed to cold or wet feet. One will develop a ton sillitis, another coryza, a third bronchitis, and yet another diarrhœa or dysentery. The author clearly proves his position and shows that no amount of stench from decomposing animal or vegetable compounds will generate disease. That they favor its extension may be true, but unless the germs of the disease in question be there, no disease of what may be called infectious, can originate de novo. The author observes, "We have been convinced that in spite of the pro-"phecies and premature reports, the investment of Metz "was never able to produce a single case of typhus fever, "inside or outside the city, or to transform typhoid fever, "which prevails there so frequently, to a possibly higher "potency, *i.e.*, to typhus fever. We have gradually reached "the conclusion that it is only when the specific germ of "the disease exists by itself, or has been introduced, that "those anti-hygienic factors become active and may then "be capable of occasioning an enormous extension of the "disease. The germ, however, is not produced by spon-"taneous generation." In this respect the author is in accord with Dr. Budd of whose opinion he thus expresses himself:

"This opinion that the poison of typhoid fever is propa-"gated continuously and never originates autochthon-

" was first established by Budd. It has gained ground as " yet but slowly, but there is every prospect that it will in " time become the prevailing opinion."

With regard to treatment the author adopts what he terms " systematic treatment," which consists in giving the patient, if seen before the ninth day, from two to four doses of eight grains each of calomel in the course of a few hours; to this one or two doses are added the next day. From the time of admission the temperature is regularly taken every two hours during the day, and in severe cases during the night as well; whenever the temperature in the axilla reaches 102°, or 103° in the rectum, the cold bath of the temperature of about 68 degrees is given and maintained for ten minutes. If the condition of the patient is such that six or more baths are required during twenty-four hours, the patient is given on the second evening from 22 to 37 grains of quinine. Usually the quinine is administered in doses of 7½ grains, repeated every ten minutes until the decided effect of the drug is observable by the rapid fall of temperature; should this occur, and that the temperature in the rectum shows about 100°, the baths are dispensed with for twelve hours or longer. Forty-eight hours after the first exhibition of quinine a similar dose, or perhaps a smaller one is given; if, however, the temperature still maintains a high rate the second dose of quinine is made larger, reaching 45 grains. If this is sufficient, and that the temperature maintains a lower standard, then the same dose, or a smaller dose of quinine is repeated every second night as long as the continuance of the fever seems to demand it. In very severe cases where 45 grains of quinine seems insufficient, recourse is had to digitalis on the morning after the exhibition of the quinine. During the next 36 hours, from 11 to 22 grains of powdered digitalis is given gradually, the state of the pulse and temperature to be carefully watched, and to be our guide in the continuance or remission of the drug. " If it should happen, " as it very rarely does that no sufficient remission is secured,

" by the use of digitalis and quinine, we may still have " recourse to veratria, which sometimes succeeds in suffi- " ciently controlling the subsequent course of the fever."

There is one observation to which we must allude. The author remarks, " No educated physician now-a-days, " expects a cure from the use of chlorine-water or the " mineral acids." From the remarkable results of Dr. Chambers in his treatment of typhoid fever in the London Fever Hospital, it would appear that his success depended not so much on medication or combatting the disease by antipyretics, so much as by the support of the patient, feeding him with food that he can assimilate, and inasmuch as there appears to be an absence of the natural gastric juice, the patient is supplied with an artificial digesting fluid ; so that although the acids are not given as curative agents they act beneficially, and experience in our own hands is such that we are satisfied with the results. We are unable at present to give any statistical return of our own hospital, but we may observe that so far as we are personally concerned we have never given a single grain of calomel at the outset, nor at any stage of the disease. The necessity of properly feeding the patient, and of unremitted attention in this particular is fully recognised. The author states with reference to wine and spirits that they are admissible at any stage of the disease, even during the height of the fever, but he does not draw attention to the fact of stimulants lowering the temperature to a marked degree in some severe cases. The use of milk as an aliment for the typhoid fever patient is recognised, although not so fully as we should expect ; on this point the author observes, " The fact " is that mucilaginous barley water, thin oatmeal gruel " and the like, combined with strong meat broth, constitute " about the most desirable diet. * * " In addition to " these things, the patient may, if he likes, have milk, but " only when boiled and reduced with water, seltzer water, " tea, coffee, and the like."

We have next from the pen of Professor Lebert, treatises on Relapsing fever, Typhus fever, and Cholera. The next

paper is on the Plague from Professor Liebermeister, to which is appended a short notice of the Black Death. Dr. Haenisch gives a short *resumé* on Yellow fever. Dysentery is treated of by Prof. Heubner, and Diphtheria by Dr. Max Oertel. This latter gentleman has already published a series of articles on this subject. We regard this undertaking as a most important one, and we think that English-speaking practitioners of all countries owe a debt of gratitude to the translators for the very excellent manner in which they have performed their work. To the publishers we must observe that their task has been most thoroughly executed. The paper is of superior description, the type large, clearly impressed, and the whole work well got up. This, the American edition, is under the Editorial management of Dr. Albert H. Buck of New York, who secured the aid of eleven gentlemen in different parts of the United States in the translation of this volume. In commending this work to our readers we may observe in conclusion, that no physician who is desirous of keeping *au courant* with the subjects to be treated of in these volumes can afford to be without them. As we go to press we have received vol. 2, which we will notice in a future number of this Journal.

Periscopic Department.

SURGERY.

On a Case in which a Foreign Body remained for Five Years in contact with the Iris, without exciting Sympathetic Ophthalmia in the other eye.

In the *Annales d'Oculistique*, July and August, Dr. SAVARY (du Mans) describes a case which occurred in his own practice, that of a French lady, aged fifty who had met with a severe fall five years previously, her foot tripping upon a hard road. She was much injured by falling upon some flints. The left eye was seriously injured, but the

exact nature or seat of the hurt was not very clearly made out, although she underwent much active treatment at the time; for four months there was continued pain, at the end of which the eye, although it retained its shape and form, was quite blind. After a period of three years, the pain returned, and Madame R. sought further advice at the hands of a surgeon, who detected the presence of a foreign body within the eye, and who made an ineffectual attempt, though in what way is not clear, to remove it. After another fifteen months, and after much pain, Madame R. applied to Dr. Savary, who found the pupil of the left eye fixed by adhesions, and blocked up by pigmented membrane, through which the opaque lens could be made out. Within the anterior chamber was a grayish-white substance, adherent to the iris, and in contact with the cornea in front. This substance filled the lower part of the chamber, and the cornea over it was hazy, and presented the mark of an old horizontal scar. The globe was soft and painful on pressure, and the ciliary congestion and intolerance of light were excessive. The right eye was in every respect normal.

The diagnosis was that, in all probability, a fragment of stone was imbedded in the anterior chamber, although it might well be that the case was one of cyst of the iris from excessive exudation; in either case some interference was called for, but there would very likely be a difference of opinion as to whether some attempt should be made to find and to remove the foreign body, or whether an abscission or even the removal of the entire eye was advisable. It was determined to search for the foreign body, although the dangers and difficulties of operating upon a globe, which was disorganized by prolonged inflammation, were obvious, and not underrated. The attempt was, however, made, and without chloroform. The cornea was incised at the periphery, and a foreign body, encrusted with exudation, was readily detected, and extracted with the forceps. There was no prolapse of iris, and but a small amount of

bleeding into the inner chamber. The pain subsided in a few hours; and when the dressings were removed the following day, the wound was quite healed, and without undue reaction. At the end of the week the eye was quite quiet, and the patient was convalescent, and able to leave the hospital free from pain, and from all inconvenience, the eye, of course, remaining quite blind. The question of determining the existence of a foreign body is surrounded with difficulty, and the writings of our foremost ophthalmic surgeons give very uncertain advice as to the proper course to pursue when there is only a probability that a foreign body has remained within an injured eye. There are some who would wait the appearance of symptoms of irritation, while there are others who would at once remove an eye which was injured to a degree which would interfere with vision, quite apart from the existence of a foreign body within it. Probably these two extremes of treatment are unwise, but it must be allowed that even at this time very many cases of sympathetic ophthalmia are met with which might well be prevented.—*London Medical Record*, Oct. 28, 1874.

Case of Hernia under the care of MR. HULKE. Acute Strangulation of a Bubonocele—Limited Gangrene of Intestine—Peritonitis—Herniotomy—Death.

The strangulation was here very acute. If medical aid had been procured on the night of the accident, and the rupture been operated on immediately if irreducible by taxis, very probably the patient might have been saved. The postponement of the operation till the third evening was fatal. The propriety of replacing intestine with a small gangrenous spot, questioned by some authorities on hernia, and sanctioned by others, was justified by the agglutinations which took place between the time of the operation and the patient's death, and which would have effectually hindered

the escape of the intestinal contents into the peritoneal cavity.

A groom, aged fifty-eight, two years ruptured, riding late from the races, felt his truss break and his rupture instantly slip down, upon which he was directly in extreme pain. When he reached home no doctor was sent for, as it was night, but sundry domestic measures were tried. He spent the night in great suffering, and in the morning a medical man was fetched, who perseveringly tried the taxis without success. On the third evening the patient was brought into the hospital. An oval tumour, of the size of a small hen's egg, exquisitely tender and very painful, filled the right inguinal canal. His belly was tympanitic, and very tender and painful. He almost incessantly retched. His pulse was very small, feeble, and rapid. Chloroform was immediately given, and herniotomy done without repeating the taxis. The sac and tissues outside it were purple from congestion. On opening the sac about four drachms of fetid greyish flocculent serum escaped, and a loop of almost black small intestine came into view. At one spot the intestine was attached to the bottom of the sac by a recent adhesion, and when this was gently separated a small grey gangrenous patch was apparent. The protruded gut and sac were washed with an aqueous solution of carbolic acid of the strength of 1 per cent., and after dividing the constriction, which was very tight and situated at the internal abdominal ring, the gut was cautiously returned into the belly, the bend of the loop—where was the gangrenous patch—being left at the internal ring, in order that if the gangrene should have implicated the whole thickness of the gut the fæcal contents might, when the slough exfoliated, escape outwardly and not be shed into the peritoneal cavity. With the same object a piece of lint was placed in the external wound to prevent its closing. A large hot linseed poultice was put on the belly, and opium was ordered. Retching continued, and he died at one o'clock p.m. next day.

On examining his body, signs of general peritonitis were found—most intense near the rupture. The strangulated gut which had been replaced was already so fixed by adhesions to the abdominal wall that had the sloughy spot given way—it was lying directly at the ring—no extravasation could have occurred into the belly.

Three cases of Strangulated Epiplocele—Herniotomy—Recovery.

These cases illustrate a fact well known—viz., that strangulation of omentum produces symptoms not unlike, and often as severe as, those of a strangulated enterocele. The first case also furnishes an example of the formation of a spurious hydrocele by the accumulation of serum in the scrotal part of the sac, which had become shut off from the inguinal part by adhesions, probably induced by the pressure of the truss. Such cystiform collections of serum in hernial sacs no longer communicating with the belly are believed to be not very infrequent, and to occur less rarely in femoral than in scrotal ruptures; in a very popular surgical textbook they are stated to be very rare. In this (No. 1) it will not escape notice that the adherent omentum in the scrotal loculus of the sac was free from those marks of obstructed circulation which characterised the strangulation of the part above in the inguinal loculus of the sac. Its extensive vascularised adhesion to the sac made it very independent of blood-supply through the proper omental arteries, and moderated the congestion which would have otherwise followed pressure upon the omental veins. The preservative influence of vascularised adhesions to the sac in maintaining the life of omentum in a tightly strangulated hernia was very conclusively proved in a strangulated femoral rupture, where two adherent pieces of omentum were found living, and but slightly disordered, whilst the remainder of the omentum, non-adherent, was dead and crepitant with gas. When omentum is actually gangrenous, there is an almost unanimous agreement that it is better to cut it away than to leave it in the sac to be thrown off; and no doubt this is

the best practice, since its exfoliation is always attended with much suppuration, the products of decomposition and the pus infect the surrounding tissues, the sac itself often necroses, and puriform œdema often spreads widely in the scrotum or in the thigh along the intermuscular planes of connective tissue. This untoward course more often happens in the old and feeble than in young and vigorous subjects. Again, where the extruded omentum retains its normal structure, all agree that the proper course is to replace it; but in the third case, where the extruded omentum is only freshly congested and œdematously swollen, and this not beyond a reasonable expectation of recovery, and where it has undergone merely those chronic alterations—viz., thickening and induration—to which all long-extruded viscera are liable, no uniformity of practice prevails, some surgeons returning omentum into the belly which others would unhesitatingly cut off. Where there is the slightest doubt of the recovery of congested œdematous omentum, and where chronic induration and thickening exist in more than a very slight degree, experience proves that retrenchment of the parts thus altered yields better results than their replacement. Again, with respect to the method of removing the omentum, differences of practice prevail. Some surgeons, fearing a difficulty in dealing with the possible hæmorrhage, secure the neck of the extruded omentum with a strong ligature, beyond which they cut it off; whilst others simply cut off the omentum through the living or but slightly altered part, and secure separately all vessels which bleed. This was Pott's practice and it is to be preferred. Whichever method is adopted, one point of practice is important—not to cut through the omentum too close to the internal abdominal aperture, because, as soon as the neck of the omentum is no longer held by the constriction, there is a strong tendency for the stump to be retracted, and it may be pulled entirely inside the belly, where, if bleeding should perchance happen, the vessels will be beyond reach, and where, if the omentum has been tied in mass, the gan-

grenous stump beyond the thread may infect the peritoneal cavity, and the ligatures which have been brought out at the surface through the wound will conduct inwards the inflammatory products from this into the belly. These are not imaginary dangers. Hæmorrhage, alarming because inaccessible, and even fatal, has followed the replacement of omentum in the belly, where the divided edges have spread out and some unsecured vessel has leaked; and a sloughy stump, still encircled by its stout ligature, has been found nearly as high as the navel, with the ligatures soaked in ichorous discharges stretching between it and the wound.

Case 1.—*Strangulated Inguino-Scrotal Epiplocele—Spurious Hydrocele—Herniotomy—Sac Opened—Recovery.*

A carpenter, aged thirty-seven, was admitted into Clayton ward on July 16, 1874. For twenty-four hours he had been retching almost incessantly, and for three days he had not passed a stool. He had, he said, been ruptured for many years, and he had worn a truss latterly with the rupture partly down. The rupture had once before been strangulated, four years previously, and reduced by taxis in this hospital.

The right side of his scrotum was distended with a granular, knotty mass, painless and not tender when handled; whilst above this the inguinal canal was filled with a hard, painful, tender swelling, beyond which a fulness could be traced above the internal abdominal ring. The taxis and other measures had been perseveringly tried. It appeared imprudent to repeat them; chloroform was therefore given, and an incision was made over the external abdominal ring and upper part of the scrotum, which laid bare the sac. This was extremely thin and very transparent. It adhered very intimately to a layer of omentum which could be distinctly seen through it. On cautiously cutting through this omentum a large smooth cavity was opened, which contained serum only, and which was shut off by firm adhesions from the inguinal part of the sac. This latter contained omen-

tum only, which was congested and swollen, and contrasted strongly with the unaltered omentum of the lower loculus. The adhesions were separated; the neck of the sac notched; the finger passed through it into the belly, in order to make sure that there was any entanglement of bowel by the sheet of omentum gathered down to the ring; and the extruded piece of omentum was retrenched. The wound united prematurely, and slight suppuration followed. On July 24 he left, convalescent.

Case 2.—Strangulated Inguino-Scrotal Epiplocele—Herniotomy—Sac Opened—Recovery.

A labourer, aged fifty-eight, was admitted into Clayton ward on the evening of Angust 16, 1869, with symptoms of strangulated hernia. The left side of his scrotum, and corresponding inguinal canal, were occupied by an oblong fluctuating swelling, in which knotty lumps as of hardened omentum could be felt. This swelling and his belly, which was tympanitic, were tender and painful. He had constant nausea, and often vomited. The pulse was quick, small, and weak. He had been ruptured, he said, for twelve years, and he had usually, but not always, worn a truss. The morning before, he had foolishly omitted to put it on; the rupture swelled. and symptoms of strangulation immediately setting in, medical aid was obtained. Two surgeons had assiduously plied the taxis during four hours, and not meeting with success, had applied ice, which also failing, they advised that he should be taken to the hospital.

Chloroform was given, and the taxis was gently repeated for a few minutes, when, reduction being impracticable, herniotomy was done without further delay. It was necessary to open the sac; it contained about two ounces of bloody serum, and a large mass of knotty omentum, most of which was tied to the sac by old vascularised adhesions. These were separated, the omentum retrenched, its bleeding vessels were separately secured, and the stump was left at the external ring; the constriction, which seemed to be

constituted by the neck of the sac, having been incised. This part of the sac had been somewhat detached from the fascia transversalis, and pushed inwards by the efforts at reduction by taxis, and a subserous space had been made, into which had the sac (here deprived of its natural support) given away, its contents might have slipped, and so, disappearing from the surface, there would have been a simulated reduction—the extruded viscera all the time lying outside the peritoneal cavity. The wound suppurated; he made a good recovery. The first stool was not passed until the tenth day after the operation.

Case 3.—*Strangulated Femoral Epiplocele—Herniotomy—Recovery Six Months later, Symptoms requiring an Examination of a Knot in the Groin, which proved to be a Cystiform Distension of the Hernial Sac.*

The wife of a small tradesman, aged about thirty-five, long ruptured, who had worn a badly fitting truss, which sometimes allowed the rupture to slip down, was seized after breakfast, on August 7, 1871, with violent pain in the lower part of the belly, and tenderness and pain in the rupture, which were soon followed by retching. The rupture was found to be irreducible. Next day, when seen by Mr. Hulke with her medical attendant, the rupture formed a swelling of the size of a walnut, very painful, and so tender that she could not bear it to be touched. She still retched frequently. Her bowels had twice acted slightly since the accident. The taxis had been perseveringly tried; it was gently repeated under chloroform, and, reduction being impracticable, herniotomy was done. The sac was as thin as tissue-paper. It contained only a small piece of omentum, the reduction of which was prevented, after incision of the Gimbernat's ligament, by a little thread crossing its neck within the sac. The wound was dressed with an aqueous solution of sulphurous acid, and opium was given her. She recovered quickly.

On January 22 following she began to be troubled with pinching and griping in the belly, not, however, so severe

as to wholly prevent her from attending to her shop. On the sixth day obstinate retching supervened, and it continued when she was seen two days later by Mr. Hulke. From the beginning of this attack till the seventh day her bowels had acted daily. She had now in the right groin, in the place of the former rupture, a small, very hard, and extremely tender and painful knot, from which tenderness and pain extended upwards into the belly.

The symptoms were taken to mean inflammation of the old sac and omentum, which after the operation had probably become agglutinated to the inner surface of the internal femoral aperture. The groin and belly were fomented; one grain of opium was given every six hours, and she was restricted to small quantities of milk, to which a little lime-water was added. Under this treatment the retching ceased, and the tenderness of the belly lessened; but the rupture remained hard and tender. Three days later the retching returned. The old hernial sac was now explored: the skin adhered intimately to it; it had an almost cartilaginous toughness, and was about a quarter of an inch thick; it contained only about a drachm of serum. Opium was again given. The symptoms subsided, and she recovered.—*Medical Times and Gazette.*

Case of Fracture through both Rami of the Lower Jaw, Treated by External Incision and the wire Suture. By THOMAS ANNANDALE, F.R.S.E., Surgeon to the Edinburgh Infirmary, and Lecturer on Clinical Surgery.

In September last, I was asked to meet Dr. Moodie of Stirling in consultation on the case of G. C., aged 18, who had received a severe injury to his face from a railway waggon. A few days previously to my visit, the patient, when following his employment of a clerk on the railway, was knocked down, and the wheel of a waggon passed over the lower part of his face. Great swelling of the whole face followed the injury; and Dr. Moodie, who was called to see

him, at once recognised a fracture through both rami of the jaw. Careful means were used to keep the fragments in position, but without success, and I was accordingly asked to see the patient.

An examination determined a fracture on the right side of the lower jaw at the junction of the angle and ramus, and one on the left side through the ramus, immediately above the angle. The body of the bone was uninjured. By a little manipulation and elevation of the body of the bone, the fragments could be brought nearly together; but, when the force was removed, the fragments at once separated, and the body of the jaw fell downwards so as to leave the mouth open and fixed in this position, as the patient had no control over the movements of the bone. There was a small wound on the right side of the cheek anterior to the seat of fracture, which was discharging pus freely. The experience of the treatment which had already been adopted having shown that some special means would be required to keep the fragments together, it was decided that the patient should be brought to town and placed under my care in the infirmary. Accordingly, he was admitted into my wards on September 28th; and, on the following day, I placed him under the influence of chloroform, and proceeded to secure the fragments together by means of a wire suture. Owing to the position of the fractures, it was found impossible to drill the jaw from the inside of the mouth, and I therefore made an external incision about two inches in length over the seat of fracture on the right side, exposed the fragments, and having drilled them, brought them together with strong silver wire. A similar incision was made over the left side, and the fragments were drilled and treated as on the right side The fragments on this side could not be brought accurately together, but they were secured as nearly so as possible. After the operation, there was still a slight tendency for the body of the jaw to become depressed, and, in order to counteract this, a piece of soft gutta-percha was introduced between the molars of the upper and lower jaw on the left

side, and held in this situation until it took a mould of the parts and became hard. It was then allowed to remain in this position, and a chin-bandage was applied to keep the jaws steady. The suppuration, which had existed before the operation, continued for several weeks,and from time to time small portions of necrosed bone separated, and were removed by the mouth. On November 13th, the wire on the left side being quite loose, was removed ; and, on December 5th, that on the right side also became loose, and was removed. Both wires had been twisted on the inner aspect of the jaw at the time of the operation, and consequently both were removed by the mouth. After the removal of the second wire, the suppuration almost ceased, and the patient was dismissed on December 9th. On January 6th, he returned to show himself, and there was then only a small superficial wound on the right side. The movements of the jaw were excellent, and the patient could masticate with ease. When the jaws were closed together, there was a slight lateral displacement of the lower one ; but with this exception, and a slight swelling of one cheek, the parts were natural in appearance.

REMARKS.—Fractures of the lower jaw have been occasionally treated by means of the wire suture (see Hamilton on *Fractures and Dislocations*, fourth edition, p. 118) and I have myself used this method in several cases of comminuted fracture of the body of the bone, drilling the bone through the mouth or through the wound which already existed. Mr. Bickersteth of Liverpool (*Medico Chirurgical Transactions*, vol. xlvii) has suggested a method of securing the fractured ends of this and other bones by means of a drill, and has given a most interesting acccount of several cases in which it was successfully adopted. The employment of special external incisions, as in the case related, has rarely if ever been practised in connection with recent fractures of the lower jaw. The objection to them is the resulting external cicatrix or cicatrices which, although not of so much consequence in the male, as the whiskers will

usually completely cover them, must cause some deformity in the female. For this reason, I would only advocate an external incision or incisions in cases which cannot be successfully treated by other means. In the removal of the tongue, or portions of it, and in some cases of tumour of the jaw, I always now bring the ends of the divided jaw together by means of the wire suture ; and my experience of this method is, that it is safe, efficient, and easy of application. Since writing this, Mr. Mason of St. Thomas's Hospital has been kind enough to direct my attention to the ingenious method of employing the wire suture in bringing the end of bones together, practised by him (*Medico-Chirurgical Transactions*, vol. liv). His method allows the wire to be easily removed at any time, and is, therefore, to be preferred to that which has usually been employed, should the case admit of the needle being passed in an oblique direction through both ends of the bone.—*British Medical Journal.*

The Use of Sulphuric Ether as an Anæsthetic. By THOMAS KEITH, M.D., Surgeon for Ovarian Disease to the Royal Infirmary, Edinburgh.

I ought ere now to have communicated to the JOURNAL my experience of sulphuric ether. I have given it in ovariotomy and other prolonged operations or whenever it was necessary in feeble patients to give an anæsthetic, ever since the beginning of 1867, when I doubt if anyone used it in this country except myself.

In giving an account in the *Lancet*, August 1870, of my second series of fifty cases of ovariotomy, the following remarks were made.

"In Case LII, the excessive chloroform vomiting during the operation, and for some time after it, so prostrated the patient, that her chance of recovery was lost. In the early cases, I have frequently had to deplore the injurious effects of chloroform vomiting in ovariotomy, and so evident was

the mischief occasioned by it in this unfortunate case, that I have since then entirely abandoned the use of this agent in ovariotomy and other severe and tedious operations, and now use instead anhydrous sulphuric ether, made from methylated alcohol, administered through Dr. Richardson's apparatus. The oftener ether has been given, the more I like it. How chloroform so quickly superseded it is a marvel. The anæsthesia of ether, though at first slower, is extremely steady and quiet. There is infinitely less vomiting than with chloroform, and, instead of the pallid face and feeble pulse of chloroform, the patient, after a long operation, is put to bed with a flushed face and a great surface-circulation. In cases of non-adherent tumour, vomiting is, I fancy, of little consequence; but, where there has been extensive adhesion, and when oozing may be set up by it after the wound is closed, vomiting can be no trifle, and may turn the scale. Sulphuric ether has now been used—at first with a small proportion of chloroform—in 53 cases of ovariotomy (of which 46 recovered), and something has been gained from the use of it. I would put in a word for the old anæsthetic. Chloroform certainly saves the surgeon five or ten minutes of time, and a little trouble. Had it never been heard of, I doubt if humanity would have suffered from the want of it."

This opinion was looked upon here as heretical, and, being adverse to chloroform, was attributed to personal motives; yet after four years, I have little more to add than simply to endorse it.

The case above referred to was at the time published in the *Edinburgh Medical Journal*, and I felt so certain that chloroform vomiting killed the patient, that in the case which came next I took to sulphuric ether in a sort of despair. It was not new to me, for in 1847–48 we all looked upon ether as a good practical anæsthetic. When I began again to use it, a small proportion of chloroform was added; for the best English ethers were found to be very impure, and it was rare to get one with a specific gravity under .750

At length, Dr. Arthur Gamgee put into my hands a perfectly dry ether made from methylated spirit. It is manufactured by those conscientious chemists Messrs. Macfarlane. Its specific gravity is .715 to .717. It cost me three shillings a pound of twenty-four fluid ounces, and it answers admirably for local anæsthesia. For the last six or seven years, nothing but this ether has been used, except twice, when bichloride of methylene was given, and once, a few months ago, when operating at Newcastle, when chloroform was used. The apparatus employed has been the mask of Dr. Richardson's apparatus, with a sponge fixed in the bottom. It might easily be improved; but it answers its purpose well enough, though there is great waste with it. For many years, the ether was administered by my brother Dr. Keith; of late, it has been given by Dr. Foulis, who will at an early day give his observations upon it. There has been no difficulty in bringing patients under its influence. It is given freely, and plenty of air gets in with it. We have not observed the excitement which is said to accompany the inhalation of ether. It is always taken by the patient in bed, and no one is allowed to be in the room but the administrator and nurse.

But the great advantage of ether over chloroform in such operations as ovariotomy lies in the almost complete absence of after-vomiting. Vomiting with an open wound is of no consequence. With chloroform, after-vomiting was the rule, and, in the afternoon and first night of an operation, the nurse required to be always at hand with a basin for the vomiting. With ether, after-vomiting is quite the exception, and it is never severe or continued; while some patients sleep on, and often remain two or three hours without moving after being placed in bed.

My confidence in sulphuric ether as the best practical anæsthetic we yet have does not thus diminish. Its low specific gravity must make it less dangerous than the others. It is not perfect, but it answers my purpose better than any other. It saves my patients from the misery of after-vomit-

ing, and, in ovariotomy, from the chance of losing their lives in certain cases of bad adhesion from bleeding being set up by the sickness after the abdomen is closed. Whether of itself it diminishes the risk of operations, I cannot tell; but I am inclined to think that it does often save the feeble ones. This much I can say, that ether has now been given in one hundred and thirty-five cases of ovariotomy, and in two cases of successful removal of the uterus for fibro-cystic tumour. In every case, the anæsthesia was profound, many of the operations were very tedious, and, of the last sixty-six operated on, sixty have recovered.

In the beginning of 1848, Sir James Simpson wrote in the *Edinburgh Medical Journal* an elaborate statistical paper, showing that the mortality after amputation of the limbs, especially of the thigh, performed in hospitals under ether was much less than before ether was known. The results of upwards of three hundred amputations were obtained by circulars sent out in the usual way. This paper is worthy the attention of those interested in the statistics of the more recent results of operations in hospitals. Either chloroform has increased the mortality of hospital operations, or, in the early days of anæsthesia from ether, the results were better than at a later period. It may be also well to note that, when this paper was reprinted some years afterwards the words ether, etherised, and etherisation were in almost every instance displaced by the words anæsthetic, anæsthetised, and anæsthesia. Perhaps the results of operations were then considered too good for ether, which latterly came to be given the merit of being only an improvement on the mandragora and other rubbish of the middle ages.—*British Medical Journal.*

A Suggestive Incident which occurred during Etherisation. By FURNEAUX JORDAN, F. R. C. S., Surgeon at the Queen's Hospital, and Professor of Surgery at the Queen's College, etc.

Every surgeon, it may be presumed, desires to use the safest and most effectual anæsthetic. Those who prefer

chloroform believe that, in expert hands, it is safe, and has fewer drawbacks than ether. Conceding much on this point, we must not forget that, while narcotisation is everywhere a daily, an almost hourly need, its induction does not always fall into experienced hands. If, then, anæsthetics must be frequently administered and administered with variable degrees of judgment and experience, a growing amount of evidence points to ether as the safer anæsthetic.

Recently, I was about to place a ligature on the femoral artery for popliteal aneurism. The patient having been etherised by my colleague Mr. Priestley Smith, who is very familiar with the use of ether, I made the usual incision in the integuments. The patient showed no sign of pain; but I had scarcely completed the incision, when the limb was seized with a marked tremor of the muscles. To clean a large artery with a sharp knife (and I believe, with the late Mr. Syme, that to dissect an artery with a sharp knife is less mischievous than to contuse it with blunt instruments) in a violently trembling limb is not a desirable proceeding. At my desire, more ether was given, but the tremor continued unabated. I again desired that more ether should be given. Mr. Priestley Smith's immediate and significant reply was this: "The man is as much under the influence of ether as it is possible to put him." With the assistance of firm pressure on the muscles of the thigh, I completed the operation; and I may add, that the man has (fourteenth day) done perfectly well.

From the incident just related, a few useful conclusions may be drawn. The most important is this: the profoundest anæsthesia of ether is not so deep as to prevent reflex muscular tremor from following an incision in the skin. It is probably much less profound than even ordinary degrees of chloroform narcotism. In short, it would seem that, with common care, a patient cannot be put dangerously under the influence of ether. Nevertheless, the anæsthesia of ether is sufficient for the vast majority of operations. Ether, then, notwithstanding certain drawbacks, should claim our first attention.

...at it cannot be readily ...ybody can pour a little ...erchief, and hold it over a face. ...ly pour out a large quantity of ...bind a towel round the mouth ...regard the most violent muscu... ...These are difficulties which very ...experience will surmount.

...where the skin needs to be freely ...where such incisions precede deli... ...ations, the deeper influence of ...sible. Quite recently, the practice ...chloroform, and then giving ether, ...in the hands of my colleague Dr. ...an old man, from whose tarsus I ...by means of a large trephine, after ...an "Esmarchised" limb.

...from my intention to discuss the ...thesia; but a few words, and a few ...I entirely coincide in the opinion ..."apparatus"—everything containing ...be scrupulously avoided. Every effort ...prevent, what so readily occurs, a deeper ...particular operation, or stage of opera... ...Chloroformisation is, especially in ...ually mischievous. Timidity in the ...oroform means much more chloroform, ...reater danger. Again: conjunctival ...ough a test; it may come too soon. ...come too late. In children, the con... ...sible in a few moments, especially ...the stomach. As regards food in ...practice it is common for mothers, ...to bring children without break... ...give them some outrageous com... ...apples and pears, being the ...impression that these are not a

meal, and that the poor child must be "strengthened for the operation. Occasionally, as in old imbibers, the skin is ready for the knife before the eye tolerates the finger. The deep pinch of an artery-forceps at the seat of the operation is a better test.—*British Medical Journal.*

MEDICINE.

On the Action of Amyl-Nitrite on the Vascular Tonus and on the Heart Beat.—Dr. W. Filehne finds as most other experimenters have done, that the inhalation of amyl-nitrite causes a considerable dilatation of the blood vessels of the head and upper parts of the body. From a review of former experiments he concludes that the mechanism of this dilatation (*i. e.*, whether it is due to an action on the vessels themselves or on their nerve centres) is still a matter for investigation. He adduces as an argument against the direct action on the vessels the fact that only some of these are dilated. and that the limits of the area of vascular dilatation are pretty sharply marked. If, then, the vessels were affected by the local action of the nitrite it would be difficult to explain how neighbouring vessels, through which the same blood was passing, should re-act so differently. Again, if the vessels were directly affected, those of the lungs, by which the absorption occurs, ought to be most dilated. But having made a window in the chest wall of a rabbit, sparing the pleura so as to avoid entrance of air, Filehne saw no change of colour of the lungs to follow inhalation of amyl-nitrite, although the vascular dilatation in the vessels of the ear was extremely marked. He considers the question is settled by the following ingenious experiment:—The sympathetic was divided on one side in the neck of a rabbit. The vessels of the ear on that side dilated. The upper segment of the divided nerve was then irritated by an induction current of such strength that the vessels were brought into a condition of mean contraction, so as to equal in size those of the sound side. Amyl-nitrite was then

administered through a tracheal fistula, so as to avoid the spasm of respiration produced by its contact with the nares. Immediately the vessels of the sound side dilated, while those on which the divided nerve was being irritated remained unaffected. By this is shown that the action of amyl-nitrite is not on the vessels, nor on the nerves, but on the nerve centres, The effects of amyl-nitrite on the heart was found to be different in frogs and in mammalia. In both classes of animals a *large* dose caused slowing and feebleness of action. A small dose in frogs produced no effect, but in mammalia (men, rabbits, dogs) a very considerably increased rapidity was noticed. That this was due to a paralysing action on the vagus centre in the medulla-oblongata was shown by a somewhat similar experiment to that noticed above. The author divided both vagi in the neck of a rabbit, and then Faradised the lower end of one of them with a current of such strength that the rapidity of pulsation of the heart was the same as before the operation. Then amyl-nitrite was administered, and, although the effect on the vessels of the ear was well marked, no increase in the cardiac pulsations occurred. The difference in the effects of the drug on frogs and mammals is explained by the absence of a *constant* inhibitory action of the vagus on the heart in frogs. If in these animals the vagi be divided, no increase in the number of pulsations occurs, while such an increase always occurs in warm-blooded animals, showing that, in them the vagus is constantly in action. The increased rapidity of respiration which follows inhalation of amyl-nitrite is supposed not to depend on a direct influence exerted on the respiratory nervous centres, but to be due secondarily to the alterations in the vascular tonus and the cardiac action. A paralysing action on the vaso-motor centres of the head and neck and on the vagus centre, similar to that caused by amyl-nitrite, is produced in men by mental emotion, such as shame, or timidity, which is accompanied by blushing and increased frequency of pulse. For interesting remarks on this similarity of effect, and for a criticism on former experiments, we must refer to the paper itself.—*Pfluger Archiv.* IX. 470. J.M P.

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1875.

THE BEAUPORT LUNATIC ASYLUM REPORT AND GENERAL PARALYSIS OF THE INSANE.

We have not been favored with a copy of the report of the Lunatic Asylum at Quebec, but are enabled to draw attention to that document from extracts which were published in an evening paper.

In the medical part of the report it appears that a large number of the patients are classified as incurable. The report states that the number of insane admitted during the years 1872-3, above the age of sixty years, seems to be very large as compared with the sane population of the same age, and which "proves that society has largely taken advantage of our institution to rid itself of cases of senile dementia." A great many are sent to die, when from poverty or their own violence, they become a burthen to their friends. The chance of benefit is greatly diminished by this system of neglect, as it is unquestionably the experience of all observers, that insanity of whatever kind, is to be treated solely, with a chance of benefit, in the early stage of the disease.

In alluding to general paralysis of the insane, the report goes on to say, "This painful disease (general paralysis) "offers few hopes of cure. Out of 100 cases we can barely "count three or four who have recovered their reason or "their original health." It would be interesting to know what treatment was adopted, in the three or four cases of recovery here reported.

General paralysis of the insane has, until quite recently, been regarded as an incurable malady. The disease might

in some cases be prolonged, but was sure, sooner or later, to claim its victim. So constant is this the result, that in the prognosis of a case of general paralysis, it has been customary for the physician to state that it is a mere question of time as the disease is incurable.

From the recorded observations of Drs. L. Fox, George Thompson, and other workers in the field of investigation, it would seem that there is every prospect of reducing the treatment of this disease to a certainty, or at least to the same probability of cure which is observed in other maladies. In the *British Medical Journal* for Oct. 24, 1874, will be found an article, or rather the record of two cases of general paralysis successfully treated by the persistent use of calabar bean. Dr. Crichton Browne who reports these cases, is Medical Director to the West Riding Asylum, and Lecturer on Mental Diseases to the Leeds School of Medicine.

On referring to the January No. of the *Journal of Mental Science* published by the Medico-Psychological Association, and edited by Drs. Maudsley and Clouston, there will be found a most important and highly practical paper "on the Physiology of General Paralysis of the Insane, and of Epilepsy," from the pen of George Thompson, L. R. C. P., London; Medical Superintendent of the Bristol Lunatic Asylum. In commencing this paper Dr. Thompson remarks "That if we would have reliable facts upon which to base our theories and practice, such facts must be the result of observations upon the living rather than upon the dead subject."

After alluding to the unsatisfactory results from even the most minute investigations of diseased structure, he points to the value, and the important revelations to be derived from the proper and combined use of the various resources in the hands of the physician. The tracings made by the sphygmograph, the condition of the vessels of the optic disk as observed by the ophthalmoscope, the temperature of the body taken and carefully noted, all these means combined,

without fail, indicate the condition of the patient, and point to the proper method of treatment. We transcribe the theories and facts as given by Dr. Thompson in the article referred to.

The Theories.—I use Dr. Long Fox's words and my own. (I.) That the organic change which exists in the very early stages of General Paralysis consists of a diminished calibre of the vessels, which is of the nature of a persistent spasm. 2. That this spasm, though persistent if left untreated, is, if recognised early, amenable to remedial means. (3.) That the lesions found after death are not the cause, but the result, of early organic changes that need be only of temporary duration.

The Facts.—(1.) That the tracings of the pulse taken at the wrist by the sphygmograph in cases of General Paralysis, when untreated, is precisely similar to that found in a person in good health who had been exposed to a cold bath for the space of a minute. (2.) That the vessels of the retinæ and optic discs are thin and attenuated, and the discs themselves are void of their natural pink tint. (3.) That General Paralytics are more frequently the subjects of cerebral syncope than persons labouring under any other disease of the brain. (4.) That in the early stages of General Paralysis the temperature of the body is lower than in health, and the skin of persons so affected is then in that condition known as the *cutis anserina*, resembling that condition seen in the cold stage of ague, in cholera, or in the rigors preceding a febrile attack. (5.) That by the administration of such remedies as are known to be antagonistic to spasmodic action, the pulse-tracing may be brought back to a healthy form, the natural appearance of the retinæ may be regained, the temperature of the body may be raised to the normal standard, and then the skin will assume its original smoothness.

The appearances of the optic discs and retinæ, as revealed by the ophthalmoscope have been before alluded to. In the June No. 1873, of this Journal, we published a paper from the pen of H. R. Bigelow, Esq., of Boston, Mass., in which that gentleman gave the results of his ophthalmoscopic observations on thirty-one cases of general paralysis. Of these, eleven presented evidence of what the writer called atrophy of the disc, in thirteen there was neuro-retinitis. and in seven the discs were congested. Those cases in which atrophic changes were observed were of long standing, but those in which increased vascularity was found were in the early stage of the disease. He also noticed that the rapidity with which the atrophic changes occurred or succeeded the stage of congestion bore no relation to the

general progress of the disease, but seemed to depend upon local causes.

This opens up a new field for observation, and we trust that before long we will be able to record the honest results of the many workers on this interesting subject. With regard to treatment Dr. Thompson states that to be hopeful of success the cases must be early recognized, if the treatment is commenced late in the attack very little benefit is to be expected. During the stage of excitement the calabar bean is to be withheld; he says he has given the drug until excitement, or even an epileptiform seizure has been brought on. But then he stops its use for a time. The dose usually administered is a quarter of a grain of the extract repeated three times a day. He does not appear to place entire reliance on the use of the calabar bean, but remarks that in his hands it has fulfilled all reasonable expectation.

THE MAYORALTY OF THE CITY OF MONTREAL.

We have much pleasure in announcing the almost unanimous election to the Mayoralty of this city of our friend and brother practitioner William Hales Hingston, M.D., L.R.C.S., Edin. Dr. Hingston has occupied a prominent position in our city as one of its leading surgeons. After graduating at McGill University in the year 1851, he went abroad and pursued his studies in Scotland and on the Continent of Europe. On his return to this country he commenced private practice and soon afterwards received the appointment of Physician to the St. Patrick's wards of the Hotel Dieu hospital. Since then he has been unremitting in his devotion to the practice of his profession, selecting surgery as his first love, we might say his only love, as the doctor appears to be a confirmed old bachelor. We hope and fully believe that this selection is most judicious at the present juncture, and trust that his Worship will be aided and seconded by his Council in the general ameliora-

tion of the sanitary condition of the city. The effect of the existence of epidemic disease amongst us, which is not to to be denied, has acted most injuriously on the trade of Montreal. It should be the aim of every good citizen to endeavor to aid the authorities in the many needed improvements, and we feel confident that the Mayor will exercise a spirit of determined will in carrying out necessary reforms.

Our late Mayor deserves the thanks of his fellow citizens for the firm manner in which he insisted on establishing a small-pox hospital, and although there were those who questioned his right to act in the premises, his action has been fully endorsed by public opinion. We trust our present Mayor will, in like manner, ignore any childish babbling in respect to needful measures, and assume responsibility in enforcing improvements which have reference to the general sanitary weal. We give below an extract from His Worship's speech, (taken from the GAZETTE) which we commend to the serious consideration of all.

If, in conclusion. we find that the mortality in certain unhealthy and overcrowded courts, or in certain crowded districts of this city. rises to 40, 50, 60 or 70 per 1000, and that in other more open, airy and well ventilated localities the rate of death falls to 10 or 20 per 1,000, what is the inference? Were it possible to obtain those data, some surprising and startling facts would be obtained. There are too many persons living in the houses for the size and cubic space afforded. But not only is individual overcrowding a cause of disease and death. Persons acquire property, perhaps large enough on which to build an ordinary house, but on this property they place several tenement houses, and instead of having breathing space in the rear, they erect a second row of houses as tenements, when even a wood shed would be considered too much ; in some places there are rows of houses three stories high, with a second row of the same height not fifteen feet apart. The system of covering every available space with tenements, which become so many centres of disease, should not be allowed, and the only way would be that the erection of houses with insufficient] means of ingress for pure air, should vitiate any contract between landlord and tenant, and deprive the former of any legal right to collect rent as certainly as would a defective roof, or looped and windowed raggedness While other cities share in this overcrowding and stifling, they must yield to this in its pre-eminence in small-pox. Montreal seems to be the nidus of that loathsome malady. While efforts are being made, on the one side to stamp it out by means of vaccination, re-vaccination and isolation—measures which the scientific world are united in recommending—vaccination is not practised among a considerable portion of the inhabitants, and isolation

is the comparatively rare exception. It required but twenty deaths to make 1,000 in one year in this city from small-pox alone (more than twice as many as there were deaths from consumption), yet only 53 of that number died in the hospital specially set apart for their reception. It will be for you, gentlemen, to say whether persons labouring under this loathsome malady will be permitted to become centres of disease and death; or whether they shall be removed to places suitably prepared for them, where danger of infecting others will be lessened.

I have not time to more than touch upon the vexed question of vaccination. If science has settled any one question in medicine, it has certainly pronounced in a definite manner in favor of the practice. But "doctors differ" is an old aphorism, and a portion of the citizens of Montreal is becoming educated in a disbelief in the power of vaccination for good, and a belief in its powers for evil. I should wish to direct attention to a fact pregnant with interest. There were 981 deaths during last year from small pox. Of these, 827 were among the French Canadian portion of the population. Why this increase? this frightful mortality among that section of our fellow-citizens so remarkable for their frugality, temperance and cleanliness? The answer may be found in the circumstance that it is they who have been chiefly, I may say, solely influenced by the writings of those who are opposed to vaccination, and who in consequence, refuse to permit their children to be vaccinated, while the others as a rule, are vaccinated, and frequently revaccinated, especially in view of an epidemic. What is the practical inference to be drawn from what I state?

Ready Method of Estimating the Fat (Cream) Present in Milk.

JOHN HORSLEY, F. C. S., *Chemical News*, describes a simple method of determining the amount of cream in any sample of milk, as follows: The milk is agitated in a graduated glass tube, with its bulk of ether, for four or five minutes. Alcohol is then added, equal in volume to the milk employed, and the whole well shaken together for five minutes. The tube is then placed in a vertical position, and allowed to remain at rest, when the oily matter will quickly rise to the surface, and its amount can be read off at once on the scale, and the percentage thence readily computed.—*Detroit Review of Medicine.*

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Valedictory address to the Graduates in Medicine and Surgery, McGill University, Delivered on behalf of the Medical Faculty at the Annual Convocation held in the William Molson Hall of the University on Wednesday 31st March, 1875. By WILLIAM OSLER, M.D., L.R. C.P.L., Lecturer on Institutes of Medicine.

GENTLEMEN OF THE GRADUATING CLASS.—The pleasant duty devolves upon me of offering you, on behalf of the Faculty of Medicine, congratulations on your present success, and good wishes for the future. For four years you have been occupied in mastering the elements of your Profession in the Lecture room, Hospital ward, and Dispensary; and now, having satisfied the requirements of the University, the long looked for degree has been conferred, the coveted title obtained. The time has arrived for you to put in practice what has been taught you here, and your success will depend, in great measure, upon how you have taken advantage of the opportunities afforded at this school.

At the outset it is necessary for you to bear in mind that your professional education is by no means complete; you have, as it were, only laid the foundation, and, let me say, Gentlemen, while it is to be hoped that a good and promising foundation has been laid under the guidance and instruction of others, it rests with yourselves what the superstructure shall be. The credit of your College, the honour of that Profession to which it is our privilege and pleasure to belong, your advancement in life depend on the course you now

mark out and follow for yourselves. You must not be content to rest on your oars. The canons of the church, the formulas of the law, are to a certain extent unalterable, are stereotyped. Not so medicine. It is preëminently a progressive science, day by day receiving fresh acquisitions, opening up new fields for investigation, and it will be your duty, as far as in you lies, to keep pace with this progress. During the first few years, while waiting for practice, you will have ample leisure to work up more thoroughly the various branches of your Profession, and keep posted in the latest medical literature. Cultivate in these early years studious habits. It happens too frequently that after the severe work of the final session, books are thrown aside, and rarely reopened. A glance at the bookshelves of any professional man—Cleric, Lawyer or Physician, will enable you to judge better than anything else, the estimate he has formed of his calling. Let it be also an ambition to add your mite to the store of medical knowledge. Every one can do something; and the routine of general practice affords many cases worth reporting or commenting upon. Our Medical Journals greatly need the coöperation of the profession throughout the country, and in thus recording your experiences you will benefit yourselves, and help to raise the standard of Canadian Medicine. Hitherto, Gentlemen, your relations have been chiefly with your teachers and with each other; now these relations are changed, and you will have to deal in the future with patients and fellow practitioners. On the first point it would not become me to say much. Remember, however, that every patient upon whom you wait will examine you critically and form an estimate of you by the way in which you conduct yourself at the bedside. Skill and nicety in manipulation, whether in the simple act of feeling the pulse, or in the performance of any minor operation will do more towards establishing confidence in you, than a string of Diplomas, or the reputation of extensive Hospital experience. Formerly, in the days of apprenticeship, the medical student was brought

daily in contact with patients of all classes, now it is too often the case that Hospital practice is the only variety seen, and the sudden change to private practice is found rather trying. Time soon remedies this, and every case successfully treated adds to the confidence you feel in your own powers. Fortunately, the first patients are among the poor, who are less exacting, more easily pleased, and more disposed to make allowances for a young practitioner than the upper classes. You have of course entered the Profession of Medicine with a view of obtaining a livelihood; but in dealing with your patients let this always be a secondary consideration. It has been well said, "No one should approach the temple of science with the soul of a money-changer." Let the spirit of our Medical moralist, Sir Thomas Browne, whose Religio Medici I would commend to your perusal, actuate you. He says "Let me be sick myself, if sometimes the malady of my patient be not a disease unto me; I desire rather to cure his infirmities than my own necessities; where I do him no good methinks it is scarce honest gain, though, I confess, 'tis but the worthy salary of our well intended endeavours." Upon your relations to fellow-practitioners, allow me to offer you a few words of counsel. It is a fact well known to you all that the great opprobrium of our Profession, especially in the small towns, is the constant rivalry and distrust of one another displayed by its members. That men whose high calling ought to bind them closely together, and whose interests are so much in common, should thus disagree, is a matter deeply to be regretted; and, I would urge upon you, during your, let me hope, prosperous career, to do all that may lie in your power to remove this scandal from our midst. A little watchfulness when commencing practice may prevent it entirely in your own circle, and you may thus have your brother practitioners as friends not enemies. The evil, I regret to say, is generally traceable to the patients. You will not be engaged in practice many weeks before one seeks you who has been under the care of some other medical man. He or she

gives you a statement of the case, blames the former attendant, and expects you to sympathize and add your measure of censure. If you do, it gets talked of, and sooner or later reaching the ears of your rival practitioner forms the nucleus of a serious quarrel. Make it a rule always to discourage the tales of a patient about another medical man; and even when you think he has made a mistake, be slow to judge. Often too you may feel aggrieved, and think yourself wronged or slighted; instead of giving vent to your feelings, on such occasions, restrain them, and remember the injunction "If thy brother trespass against thee; go and tell him his fault between thee and him alone; if he shall hear thee, thou hast gained thy brother."

A word now on the Temperance question, which is becoming an all important one in Canada for us as medical men. That alcohol is a medicine, and a valuable one, nobody not blinded by prejudice denies; but bear in mind that it is a dangerous remedy, and one that should not be, as it is, so generally recommended by practitioners.

There are many conditions, for which alcohol is now freely prescribed, quite amenable to treatment by other medicinal agents combined with a careful regulation of diet. When you do order it, give positive directions about the quantity, and the length of time it is to be continued. Inattention to these matters, especially in patients suffering from any of the neuroses, is occasionally the starting point of dangerous drinking habits. Medical men, more than any other, have opportunities of observing the commencement of such habits, and care should be exercised, lest this tendency be fostered by the form of treatment employed. No class of individuals can better wage war against the indiscriminate drinking habits of the public than the Doctors, and the laity will hearken to their admonitions on this point; even when the exhortations of the Divines are treated with contempt. Example, Gentlemen, is better than precept, and by becoming teetotallers yourselves, you will neither injure your health nor damage your professional prospects.

Too many valuable lives in our Profession are sacrificed yearly to intemperance ; and, now is the time for you, with minds still "wax to receive and marble to retain," to lay the foundation of good sober habits.

Those of you from Ontario, and intending to practice there, will, I suppose, present yourselves to the Medical Council for examination. This much abused institution is, I believe, doing good service to the Profession of that province, and it is to be regretted that such an examining body does not exist for the Dominion. In a country like this where the power of granting degrees in Medicine is possessed by all the sectarian Universities, it is but just that the profession at large, should have some guarantee of the proficiency of the graduates ; and this they can only obtain by combining together, as in Ontario, and examining every man for his license. The examinations are thorough, conducted with fairness, and such as no McGill man who has attended to his studies need fear. Just as Edinburgh men sometimes fail at the Primary and Final Examinations before the Royal College of Surgeons, so occasionally will men from the Universities of Canada be rejected at the Ontario board. As an independent examining body it may yet do much towards elevating the standard of Canadian medicine by making the necessary qualifications of a higher order than they are at present. Hitherto it has not afforded much protection against illegal practitioners, but now, as the finances are in a better condition, the Council is prepared to take action, and intends to prosecute unlicensed men. One hears the assertion not unfrequently made that the existence of the Board is prejudicial to the interests of our Medical school, as it hinders Ontario students from coming here. I do not see how this can be the case. The Ontario student, whether he attends the Toronto schools or McGill, has the same examinations to pass, one before his University, the other before the Board. It entails an additional expense, and it is this, not the examinations with which all the students find fault.

In conclusion, gentlemen, let us hope, that wherever you go, you will maintain the good name of your Alma Mater, and add to the lustre which already surrounds her. Bend all your energies to the attainment of proficiency in your calling; work while it is yet day, that when your night comes it may be said of you as of Gerard de Narbon, one of Shakespeare's Physicians."

"He was in what he did profess, well found."

Nelaton's Method of Resuscitation in Cases of Syncope in Anæsthesia produced by Chloroform. By G. P. GIRDWOOD, M.D., M.R.C.S., England; Professor Practical Chemistry, McGill University.

In No. XXVI vol. 2 of the London Lancet for Dec. 26, 1874 is a letter from Mr. George Pollock on "The danger of Anæsthetics" called forth by the report of a death from the administration of Bichloride of Methylene. This letter provoked a correspondence upon the relative safety or danger in the use of different anæsthetic agents, wherein some of the writers extol the advantages of sulphuric ether, and nitrous oxide gas, or of mixtures of these agents with chloroform and draw contrasts to the disadvantage of chloroform as an anæsthetic, whilst others maintain that chloroform if properly used is as safe as ether, and lay the blame of death in fatal cases either to carelessness in administration or to impurity of the preparation used. There is doubtless much to be said in favour of and against all anæsthetics and every one speaks with more confidence of the particular anæsthetic he is in the habit of using and with which he is most familiar. If it were possible to arrive at exact statistics of the number of cases in which anæsthesia is produced by, and the number of deaths resulting from the use of each anæsthetic it would be possible to draw some sound conclusions, more especially if the quality of the agent were also correctly ascertained. As it is, the statistics are obtained only from the limited number of severe operations

in which these agents are employed and it must remain always a difficult point of determination, how far the death is due to the action of the anæsthetic, and how far to the operation, or as death has occurred not unfrequently almost before the inhalation has commenced how far to mental causes which would exist independently of the anæsthetic. I am informed that during a period of 25 years experience in the Montreal General Hospital only two cases of death have been attributed to the use of chloroform. The method of adminstration being on a towel folded into a cone ; and allowing of free access of atmospheric air. I am strongly in favour of this mode of administration as against all other forms of complicated apparatus which often frighten nervous patients. That chloroform has a decided tendency to depress the heart's action is clearly admitted, especially when taken for a long operation, and hence its danger ; for comfort and convenience of administration it is superior to all anæsthetics yet introduced. It does, however, occasionally cause syncope and sometimes even death by reason of the depression of the heart's action, and consequent failure of supply of blood to the brain.

Hence it appears to be admitted generally that chloroform is more dangerous than ether, the next most useful anæsthetic, but the objections to the use of ether to a great extent counterbalance its greater immunity from fatal results. The amount of muscular activity is so great as often to materially interfere with the operator, and render the operation more dangerous, especially in cases where careful dissection is required, an example of which is given by Mr. Furneaux Jordan in the *British Medical Journal* for January 30, 1875, where he experienced great difficulty in ligating the femoral artery from muscular tremor, the result of the use of ether.

In the same Journal Dr. Thomas Keith of Edinburgh laudates ether at the expense of chloroform, on the ground that in ovariotomy cases the use of chloroform is followed by prolonged vomiting which is not the case with ether. It

must be a difficult question to decide how much of the vomiting is due to operation, how much to chloroform. The essential conditions for the safe administration of chloroform are, to allay nervousness at starting, to avoid by ample dilution irritation of air passages, to produce the effect required with a minimum quantity of chloroform and in as short a time as safety will allow, to watch the pulse and respiration and stop at once if any untoward symptom occur, and if such should happen to have recourse at once to remedial measures.

In spite of all care cases of syncope even fatal will occasionally happen.

In the British Medical Journal for August 22, 1874, is a description of the application of Nelaton's method of resuscitation from syncope during chloroform narcosis, by J. Marion Sims, M.D. where the patient was restored after prolonged and repeated efforts only, but the process was eminently successful. In the Canada Lancet, page 165, vol. 7 a case is recorded of the successful treatment of a case of chloroform narcosis by this process by Dr. Wade of Cobourg. J. D. Brown, Esq., F.R.C.S., England, in a paper read before the South Wales and Monmouthshire branch of the British Medical Association, July 5, 1871, gives a record of five recoveries from dangerous syncope, under the influence of chloroform, by similar treatment. I can add one more case in proof of the utility of this plan for recovering patients from syncope caused by chloroform.

During my tour of duty in the month of January last as attending physician to the out patient department of the Montreal General Hospital, a patient, a young man of muscular build, whilst holding a wedge accidentally put his thumb over the end of it, and the man who was driving the wedge brought down his 24 lb sledge upon the thumb crushing it and rendering amputation necessary, applied for relief.

Dr. Cline administered chloroform during the operation. There was but one artery requiring ligature, which, whilst

I was seizing it, stopped bleeding. On looking round, the patient was making attempts to vomit and presented the appearance of a man suffering from syncope, his pulse imperceptible. I at once lowered his head which had previously been slightly raised, and in a few minutes the pulse returned. I completed the operation but whilst so doing, some one raised the patient's head again,this was succeeded by a second faintness more severe than the former, his pulse again became imperceptible and the respiration stopped, I now raised the foot of the couch as well as depressing his head. Respiration was reestablished by a few movements of artificial respiration by Dr. Cline and sprinkling with cold water,to which stimulant the respiratory muscles responded. Dr. Ross who being in the house I had asked to come to my assistance, when I found the feeble condition of the patient, now came, but pulsation and respiration were fast returning, by keeping the inclined position "tete en bas" for an hour after, he completely recovered. On coming to his senses he informed us that this was his first day's work after an attack of typhoid fever, his weak condition from this cause together with the excessively painful nature of the injury, had probably been the predisposing causes to syncope in this case.

I think that had this proceeding been adopted in some of the cases wherein death has been put down to the effect of chloroform the fatal cases would have been much fewer, and that with this process at hand, and easily applied the risk of fatal results in the use of chloroform is much reduced. The chloroform first inhaled passes into the circulation and is carried by it to the sensorium, which is the first part affected, and long before the whole of the blood in the system can be charged with chloroform, by degrees the different senses are overcome, voluntary muscular irritability is allayed and reflex action of the voluntary muscles is the last of the cerebro spinal functions, to be arrested, and now only the phenomena of organic existence remain. If the action of the anæsthetic be continued the functions

of organic life also are arrested and then death ensues, but if the brain can be supplied with a little blood the functions again return, and one by one the suspended vitality is restored to the senses.

It may be well to consider, whether this gradually increasing feebleness of the heart's action does not point to the medulla oblongata as the source of the movements of the heart, for when the body is inverted it is not only the vertebral and carotid arteries which send oxygnated blood up to the brain, but also the venæcavæ and the spinal plexus of veins which send hither venous blood. Galvanism and other forms of actual stimulants to the hearts action have not been found to produce the same effect as the simple inversion of the body.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Fracture of the base of the Skull.—Recovery. Under the care of Dr. Ross. Reported by Mr. J. DORLAND.

D. P. a young man nineteen years of age, employed in a tobacco factory was brought to the General Hospital on the 9th of February at noon in a semi-conscious condition, bleeding profusely from both ears and from a wound on the right cheek. He had been working on the hoist when a trap-door fell and jammed his head against the sill. He lost a considerable quantity of blood before he reached the hospital. Upon examination, it was found that blood flowed more freely from the right than from the left ear. Blood was effused under the scalp above and behind the right ear, forming a large tumor about three inches square, quite tender to the touch.

There was tenderness also behind the left ear, but no extravasation. No depression of the skull or external fracture could be found. There was a cut two inches in length along the right malar bone; the right eye was ecchymosed, and the whole face bruised and swollen. The extremities had lost neither sensation nor motion; but the muscles of the right side of the face were paralyzed and there was consequently absence of expression on that side and a drawing of the mouth and face towards the left side. He had complete power over the orbicularis muscle, and no difference could be seen in the dilating and contracting of the pupils. He had vomited once while being conveyed to hospital. Temperature 98°, Pulse 56, Respiration feeble, quite rational but drowsy and inclined to sleep.

One drop of croton oil was ordered, to be repeated if necessary; his hair was clipped, and ice applied to the head; milk and beef tea to be administered liberally. At 2.30 p.m., he vomited again; at 7.30 he complained of great pain above the right ear; blood oozing constantly from that ear. Temp. 99 3-5°, Pulse 68, Resp. 30.

Feb. 10th. During the night, his bowels acted freely; passed his water at the same time without difficulty. Very drowsy, yet when aroused, is quite rational. Has great difficulty in blowing his nose owing to the paralysis of the right side of his face. Slight oozing from both ears. Great pain is complained of in the right temporal fossa and over the left mastoid process. Right eye is quite closed; Temp, 99 1-5°; Pulse 66, Resp. 24.

He was ordered the following mixture.

Potas. Bromid. ʒii.
Spts. Chloroform. ʒii.
Tinct. Hyosciam. ʒiv.
Aquae ad. ʒvi. ℥ss. every third hour.

11th Feb. Blood has ceased to ooze from the ears; the right eye is less swollen: he has power to open and close

the lid. Pain above the ears continues and becomes so severe at night, that it prevents him from sleeping.

12th. Bleeding from the left ear began again during the forenoon; none from the right. Paralysis continues, he retains power over the orbicularis; the eyes move together and the pupils contract equally, seems less stupid and drowsy. If a watch be held close to his right ear, he can hear nothing; but at a distance of two inches from the left one, he can distinguish the ticking.

15th. During the last two days bleeding has continued from the left ear, and to-day there was oozing from the right ear as well. The pain which prevents him from sleeping is sharp and steady and is referred chiefly to a point a little above and behind the right ear. The deafness is increased; watch can be heard now at a distance of only half an inch from the left ear. The left pupil is dilated and its action in contracting and dilating is irregular. He has double vision; in looking at one object he sees two, in looking at two, he sees four. The false image is less distinct and is situated to the right of, and on a slightly higher level than, the true one. There is paralysis of the left sixth nerve for the left External Rectus is powerless; this gives a fixity to the left eye, causing the appearance of internal strabismus in the right.

21st. The swelling and pain have been gradually disappearing; the inequality in the pupils still continue. Since the swelling about the right eye has disappeared, he is unable to close that eye completely. A blister was applied behind the right ear.

March 2nd. Bleeding from the ears has entirely ceased; the pain in the head is much less, although at times it becomes still very severe. He has at irregular intervals suffered from pain in the eyes with intolerance of light, the right eye being always more afflicted than the left.

16th. His general health rapidly improved, the paralysis of the face became much less, the pupils equal and the double vision less marked, till on the 16th he was able to

be removed to his home. Throughout the case, the temperature ranged between 98° and 100°, having on only one occasion reached 100 2-5°. The pulse ranged between 48 and 76; the respirations between 30 and 16, the pulse-respiration-ratio varying between 1:2—and 1:4.

Foreign body in the bladder removed by the Lithotrite.—Under the care of GEO. ROSS, M.D., Prof. of Clin. Med., McGill University.

A. D. was admitted into the Montreal General Hospital on the 10th March complaining of peculiar symptoms relating to the voiding of the urine. He states that in the upright position, if he attempts to make water, the stream of urine is almost instantly completely checked, accompanied by a sense of occlusion, and a desire to strain or force to overcome the obstruction. Then on lying upon his side he is able to pass water freely in a large stream. It appears that about two weeks and a half ago he and two other companions got upon a "spree," and the latter, by way of amusement, took to introducing beans and other foreign bodies into the urethra of our patient. He was quite intoxicated at the time and remembers nothing about it, but only surmises this from what he saw on becoming sober, and from what he was told by the others. The symptoms mentioned were observed by him the following morning and have been present ever since. There could be no doubt that he was suffering from the presence of some foreign body in the bladder—its nature, of course, it was impossible to know. A short-beaked bulbous sound was at once introduced by Dr. Ross, and very soon touched the foreign substance. The contact of the sound could be be very distinctly felt by the examining hand, and a moderatley loud click could be made audible to those standing round the bed. It was determined to remove it by the lithotrite the following day, the intention being, if it were found small enough in the diameter grasped, to withdraw it entire through the urethra,

or else, if necessary, to crush and remove it in pieces, (for it must be remembered that the patient had no positive knowledge of the nature of the body). Accordingly, on the 11th of March, a moderate quantity of urine having been purposely retained for some hours, a closed lithotrite was passed into the bladder, and the object sought readily made out lying behind and to the left side. This was then seized in the jaws of the instrument and raised free from the bladder-walls. On making simple pressure upon the male blade it was found that the substance was readily compressible, and not hard or friable. It was therefore squeezed pretty firmly, and the lithotrite withdrawn. It was found to contain the whole compressed substance of a large white bean. It was evident that this had been grasped in the long diameter, and fortunately so, for if seized across its middle it would probably have refused to be extracted whole, and if broken, would almost surely have left some fragments behind which might have given rise to some further annoyance before being got rid of. He was discharged the next day, a happier and a wiser man.

Correspondence.

TORONTO March 25th, 1875.

Editor of Canada Medical and Surgical Journal.

DEAR SIR,—As a member of the Canadian Medical Mutual Benefit Association, and feeling an interest in its welfare, I wish to draw the attention of the members of the profession who are still without its pale, to the fact that it is a real live institution, and that its members are sparing no pains to ensure its success.

It is destined to supply a much felt need, and ought to be the means of drawing the profession together in one strong bond of unity; and we should feel a common inter-

est in supporting and building up an institution which in its way is likely to be productive of so much benefit.

As one applicant expresses himself "He does not think it has come into existence one moment too soon, as especially in the outlying sections of the country the medical men cannot hope to provide a competency for those depending upon them in case they were suddenly taken away, and the organisation presents an opportunity which should render the profession in general grateful to its originators."

Nor need we go to the newly settled districts to find members of the profession who need the benefits the Association affords, as is evidenced by the fact that an appeal is about being made to all the registered practitioners in Ontario to raise a fund to relieve the straitened circumstances of the family of the late Dr. Lizars of Toronto.

On the ground that the late Doctor was a registered practitioner, this action cannot be called in question, and ought to receive our hearty encouragement and liberal support. But on the other hand it should not be forgotten that this is establishing a precedent, which for the same reason should have been established long ago, and must for a similar reason follow every such lamentable occurrence in the future, as the death of a regularly qualified medical practitioner.

But we would scarcely like to place ourselves in such a relation to each other, or in such a position with the world, as a course of this kind would necessarily and inevitably involve.

We could however, by building up and keeping well managed and supported such an association have an amount which would be very acceptable to the representatives of a deceased member, and which we could claim as a right and just due, and not have to feel towards our brethren that it was doled out to us as a charitable pittance, and to the outside world, that such is the result of the efforts of a lifetime spent in unremiting and unrequited toil.

The Association furnished every qualified practitioner with a blank form of application, and while we are pleased with the readiness with which a good number promptly filled up and returned them, still there are many others from whom we have yet to hear, and probably in most cases from indifference. To such we would urge that you give the matter your earnest attention and forward your applications.

Yours truly,

(Signed) MEMBER.

Periscopic Department.

MEDICINE.

Clinical Society of London.—Remarkable Case of High Temperature.

Mr. J. W. Teale then read notes of a case of Remarkable Elevation of Temperature (to 122° F.) after injury to the spine. The patient, a young lady, was thrown in the hunting-field on September 5th, 1874, by her horse taking a standing-jump at a five-barred gate, and, catching his feet in the topmost bar, falling heavily upon its rider. She staggered to her feet after momentary unconsciousness, and was seen by Mr. Teale within five or six hours of the accident. She was then in a state of collapse, and complained of pain in the back; there was fracture of the left fifth and sixth ribs. A few days after her temperature was 101°, but became normal in the space of a fortnight. The fractured ribs united; but although pain and tenderness still existed over the sixth dorsal spine, she retained perfect power in her limbs. She was then seen by Mr. Pridgin Teale, of Leeds, and the conclusion arrived at was that there was subacute inflammation of ligaments. On October 3rd the temperature rose to 100°, and then to 101°; still tenderness and pain; sleep was disturbed, and she now suffered from

jerkings of the legs. In spite of the application of ice-bags to the spine, the temperature slowly rose, reaching 105° on Nov. 3rd, and 106° on the 6th. It was then thought that there was inflammation of the spinal ligaments and intervertebral substance, and probably also of the membranes of the cord. Voluntary power over the lower limbs was still retained. On the evening of Nov. 8th the temperature reached 110°. Leeches were applied to the spine, and mercurial ointment rubbed into the thighs. On the 11th the temperature rapidly rose from 105° (to which it had fallen on the 9th) to 116°; on the 12th it fell to 110°, to rise again to 118°, reaching in the early morning of the 13th the astonishing height of 122°, the index of the thermometer becoming buried in the bulb at the top of the instrument, 122° being the limit of its graduation. A fall of 8° the same day was followed by a rise to 122° again in the evening, while on the 14th it had fallen again to 108°. During this period the pulse kept at about 120, the patient rapidly emaciated and often appeared to be sinking. Deglutition became very painful, and nutrient enemata were had recourse to. The ice-bags and mercurial treatment were still pursued, the latter being left off on the 16th on account of the gums becoming slightly tender. She now began to improve slightly, the pulse falling to 110, swallowing became easier, the twitchings in legs less frequent and the dorsal pain diminished. But, nevertheless, the thermometer recorded most extravagant figures, which were shown to the Society on a chart. (We append below the whole series.) Thus from the 16th Nov. to the 23rd it ranged between 114° and 118°, on two occasions reaching 120°; from Nov. 23rd to the 1st Dec. it fluctuated within wide limits—i.e., between 108° on the 29th to 122° on Dec. 1st, a difference of 10° sometimes occurring between two consecutive observations. From Dec. 1st, it began to subside, reaching on the 8th 110°, which modest level it maintained with but slight variation until the 19th, the only noticeable phenomenon occurring in her general condition,

which still steadily improved, being sudden swelling of the tongue on Dec. 12. Decided improvement still continued save in the course of the temperature which ranged between 112° and 114° from the 19th to the 27th, rising to 117° on the 20th, which proved its final outburst; from thence it somewhat rapidly declined, reaching 105° on Jan. 5th, and becoming normal on the 10th. On Jan. 22nd the patient was apparently convalescent, appetite being good, and thenceforth she took out-door exercise. It was concluded that the cord itself had not been primarily implicated, but

that the rise in temperature must be attributed to the extension of inflammation to the cord. Mr. Teale said that during the case no fewer than seven different thermometers, made by Harvey and Reynolds, had been used, of which four had received Kew certificates. As no ordinary clinica thermometer registered above 118°, one was specially provided which registered 122°; on December 1st the index of this instrument buried itself in the bulb, and as the index measured three inches, the temperature might almost be said to have reached 125°. (The thermometer was

passed round for the inspection of the members. The temperature was generally taken in the axilla, one thermometer on each side, and then the instruments reversed. Usually the readings of the left side were about $\frac{1}{2}^{\circ}$ higher than those on the right, but owing to the patient's emaciated and weakened condition the actual body heat may have been even higher than the record showed. On several occasions the temperature was taken between the thighs; once it showed 116° there, while it was but 113·5° in the axilla. On December 11th it was 111° in the rectum, and 110·4° in the axilla. The patient could never bear the thermometer to be placed beneath the tongue. The thermometers were inspected by two or three trustworthy witnesses before and after each application, and the results were always immediately recorded in writing. No hot water bottles were near the axillæ, as had been good naturedly suggested. Sometimes when the thermometrical readings were highest, the hands, feet, and forehead were icy cold, and the patient remarked that she felt as if "her blood was on fire." The urine was passed with difficulty in hot towels; it appeared a mass of lithates, so that no observations on it could be taken. The menses, which appeared once after the accident, were then suppressed until the 20th of January, when convalescence was established. The chart exhibited showed the rapid alternations of temperature within a few hours but during the space of seven weeks it never fell below 108°, With regard to the nerve-symptoms, there was at no time any distinct loss of sensation, nor any obvious paralysis; but on her recovery it was noticed that the left leg was the weaker of the two. Since the paper was sent in the patient, who had returned home, a distance of 100 miles, having had a normal temperature for five weeks, and been walking about apparently well, has experienced a relapse. At the end of her journey she had a severe hysterical attack (similar to many which she experienced during her illness), and the temperature again rose, once reaching 110°. Better accounts had since been received of her, and although her

temperature was still 105° to 106°, it was not found absolutely necessary to confine her to bed.

The accompanying chart, exhibited at the meeting, shows the temperature during two months. The chart did not allow of accurate estimation of decimals.

Mr. Calender thought the Society much indebted to Mr. Teale for having come so far to read to them so remarkable and unique a case. The highest temperature following on spinal injury with which he had personally met was 107°. He inquired what relation the pulse and respiration frequency held to the temperature in the present case.—Dr. Greenhow said that he did not venture to offer any explanation of this remarkable case. The Transactions of the Society contained several cases of hyperpyrexia occurring in rheumatic fever, and he had only seen one case of that class in which the temperature had reached 110°. He was accustomed to teach that a fatal termination would ensue in a case of rheumatic or other fever in which the temperature rose above 108°, unless reduced by the cold bath. This case bore out what he had always thought, that the high temperature was something superadded to the disease, and probably depended on nervous disturbance. Dr. Farquharson referred to a case of excessive lowering of temperature to (81°) after spinal injury, brought before the Society by Dr. Nieden two years ago, and remarked that, according to some observers, injury to the cord high up produced great lowering of temperature, while others affirmed the exact contrary. Many held that a temperature of 107·5° is incompatible with life; and, moreover, there is acute fatty or parenchymatous degeneration of organs in these cases, as shown by Liebermeister and others, which would render the maintenance of life above that standard impossible. The limits of this resistance to heat must be greatly extended by the present case.—Mr. Jonathan Hutchinson thought that there was an essential difference between these cases of abnormal temperature following lesion of nerve-centres and those which formed part of the

course of a specific fever. He had for some time past been engaged in studying the effects of injury to the spine, and had concluded that there were two classes of opposite facts in injury to the cervical portion of the cord—in the one accompanied by very low, in the other by very high, temperature. He related a case in which life was prolonged five days after fracture of the seventh cervical vertebra. There was complete paraplegia, with priapism, but marked coldness of lower limbs and penis, the temperature never rising higher than 4° below normal. Several cases are now on record where the temperature fell to 81° or 82°, but perhaps more where it, on the other hand, rose to 110°. But all these were cases of crushing of the cord, and all terminated fatally. In Mr. Teale's case he suspected that there must have been some change taking place in the cord itself, and that the mischief was not wholly external to the cord.—Mr. Pridgin Teale (Leeds) saw the patient at the onset of the very high temperature, it being then 104°, and also three weeks later, when it was 114°. Unless he had known that the temperature was so high, he could not have thought that she was so ill; and it was certainly most remarkable that this great temperature co-existed with apparently good health. From this case alone we must abandon the idea that the temperature *per se* is an element of danger. It is clear that certain nervous injuries are capable of leading to great changes in temperature; and he related a case of fracture of the skull, sustained in the hunting field, in which this reached 109°. After sudden apoplexy the heat of the body is often much raised.—Mr. J. W. Teale, replying to Mr. Callender, said that the pulse at no time exceeded 120, and was usually between 90 and 100, while there was no notable increase in the frequency of the respiration.—*London Lancet.*

*On the Relations between Diphtheria and Scarlet Fever.** By ARTHUR RANSOME, M.A., M.D. Cantab., Lecturer on Public Health in Owens College, Manchester.

The following case shows the close connection between these two diseases.

On February 23rd last year, a boy at school had scarlet fever. He was isolated until March 25th, when his brother saw him and took the complaint. Other cases occurred at the school on the 29th, 30th, and 31st. On April 2nd, one of the masters had a rigor and sore-throat: he left at once, and was seen by me next day. On the third day diphtheritic patches covered the tonsils; but there was no rash. Slight albuminuria accompanied the pyrexia; both disappeared by the seventh day. On April 9th, six days after he arrived at home, his mother was attacked, membranous exudation appearing in both tonsils; but there was no albuminuria, and no rash.

The origin of these cases must surely be traced to the epidemic of scarlet fever at the school; for there were no cases of diphtheria either in the neighborhood of the school or near their home. The close relationship of these diseases has often been pointed out. In the *Report of the Medical Officer to the Privy Council* for 1859, Dr. Burdon Sanderson gives cases of diphtheria and scarlet fever co-existing; there also I find three cases of diphtheria following three of scarlet fever, and the former spreading to a neighbouring cottage. These diseases have much in common. They are alike in their zymotic or epidemic character; both are characterised by high pyrexia; their chief point of attack is the throat and the glands of the neck; and a rash is found in both diseases. Their sequelæ are also similar; suppuration in the lymphatic glands, ulceration of the ears, arthritic affections with or without cardiac complication, kidney-disease and dropsy general or localised paralysis of the nervous system. I have

* Abstract of a paper read before the Epidemiological Society of London, January 15th, 1873.

seen each and all of these consequences after both diseases.

Some physicians have been led by these points of resemblance to regard them as one disease, the same poison producing different manifestations; but in spite of their similarity, I venture to think the differences are too important and too numerous to permit so simple a solution of the problem. In the first place diphtheria is seen to arise directly from scarlet fever. I have never known the converse action. There are other etiological differences. Though both are contagious, diphtheria is less so, and more frequently occurs in single cases. Where several cases occur together, some general cause is probably concerned. Scarlet fever is more frequently conveyed by clothes or other fomites, by attendants on the sick, and it may be conveyed by means of milk. I am not aware that diphtheria has ever spread by any of these means. The two diseases differ in their geographical distribution. Diphtheria is common in India where scarlet fever is unknown. Colonies and all new settlements seem particularly liable to diphtheria; it has appeared in the Australian colonies and in South America, attacking the otherwise healthy town of Buenos Ayres. In Lima, it was noticed that the black races withstand its contagion. It selects high and well-drained districts, when low-lying lands in the vicinity escape. Dr. Blake, in the *Transactions of the Medical Society of California*, mentions a most fatal epidemic at an elevation of 4,000 feet. Many places in England subject to diphtheria are either high or well drained. Scarlet fever also haunts certain places; but these scarlet-fever fields are not at high levels, nor are they those in which diphtheria is especially prevalent. Diphtheria is often connected with defects in the house-drainage, not always due to imperfection in the house-connection with a general sewage system, but to leakage from private cesspools; so that a question of spontaneous origin may arise in this disease, which is hardly admissible with respect to scarlet fever. Season has a different influence on the two diseases: scarlet fever being most prevalent in the autumn,

low barometric pressure and greater humidity in the air favouring its diffusion ; while diphtheria may arise at any season, and, in my own experience, its most virulent epidemics have occurred in the summer months.

Another difference is found in the fact that scarlet fever is not often associated with other diseases, while diphtheritic affections are not uncommon in the course of other pyrexial disorders. It is recorded in the Report of the Diphtheria Subcommittee of the Epidemiological Society, that, in the epidemic of 1861, this disease occurred fifty-seven times alone, thirty-four times in association with scarlatina, nine times with small-pox, seven with measles, six with fever, and three times with ordinary sore-throat, croup, and catarrh. But in the nature and symptoms of the two diseases are points of unlikeness too great to allow us to rank them as varieties of the same species. Thus, the rash of diphtheria is often absent, is very variable as to the time of its appearance; it occurs seldom at the outset of the malady, and I have seen it as late as the third week of its course. The period at which albuminuria sets in is also different, often appearing in severe cases of diphtheria within the first two or three days, whilst in scarlatina it seldom sets in until degeneration of the kidney is commencing. There is, indeed, an entire absence of definiteness about the duration of the symptoms of diphtheria, which of itself marks it off from the regular sequence of events in scarlet fever. I have known it last for six weeks, and even two months, without any evident affection of the cervical glands, but with constant formation of exudation on the fauces or on other mucous surfaces.

The mode in which diphtheria localises itself on the mucous membranes, or on the broken surfaces of the skin, would probably be sufficient to separate it from any other disease. I do not know that scarlet fever ever attacks the larynx ; but I have seen the diphtheritic membrane appear in different cases upon wounds of the skin, upon blistered surfaces, and upon nearly all the mucous membranes of the

body—the lips, cheeks, nose, ears, pharynx, larynx, trachea, and bronchi, and on the anus and vulva; and different epidemics have differed strangely in this respect; in one, the throat would always be the point selected for attack; and in another, the other mucous membranes. It is somewhat remarkable in the latter case that, although the disease was mild and there were no deaths, the subsequent complications were much more frequent and troublesome.

The last point of difference that I shall mention is the fact that, while scarlet fever seldom reappears again in the same individual, diphtheria seems by its first attack to confer no immunity from subsequent seizures; on the contrary, the susceptibility of the throat seems to be rather increased.

Upon taking a survey of all these relations existing between scarlet fever and diphtheria, it is evident that they are distinct diseases, and yet that there is some very close and definite connection between them. Wherein the bond consists, it is not easy to point out. From the manner in which the diphtheritic poison seeks out the highest points of the best-drained localities, it has appeared to me most probable that the virus of this disease must be of a more rarefied and subtle nature than the germs that produce scarlet fever.

It is possible that the nature of some other ferments may throw some light on this subject. I would especially call attention to the discovery by M. Berthelot (*Comptes Rendus*, vol. 1, p. 980) of an unorganised glucosic ferment in an infusion of yeast resembling diastase; also to the fact that one fermentation by organised beings frequently prepares the way for another. It may be suggested, that in one of these ways the singular relations existing between scarlatina and diphtheria might be accounted for. I do not venture to affirm that there is a strict analogy between these fermentative actions and the zymosis of scarlatina and diphtheria; but, as there exist in nature ferments requiring the presence of living germs, and others acting independently of them, so there are disease ferments with

organic germs, reproducing themselves, and others which have no definite term of life, and which are not self-reproductive.

It is probable that, in most cases of fermentation, the living being connected with each kind of this action is of a specific nature, and peculiar to the medium or to the food upon which it lives. In some instances, a ferment either during or at the end of its operation will produce the conditions favourable to the growth of another kind of germ, as seen in the crowd of vibrios appearing at the end of a mycodermic fermentation; so the pyrexial state may produce the condition most congenial to the diphtheritic ferment, whether that may prove to be an organised germ or an unorganised catalytic ferment. As my excuse for offering these suggestions, I will quote, in conclusion, the words of the great philosopher Robert Boyle: "He that thoroughly understands the nature of ferments and fermentation shall probably be much better able than he that ignores them to give a fair account of several diseases (as well fevers as others) which will perhaps be never thoroughly understood without an insight into the doctrine of fermentation." (*Works*, ed. 1744, vol. i, p. 486.)—*British Medical Journal.*

Treatment of the Colliquative Sweating of Phthisis.—The colliquative sweats which so rapidly weaken phthisical patients, and are so disagreeable to them, have necessarily attracted the notice of physicians, and a great number of remedies for this symptom have been cried up. Rayer praises white agaric (Boletus laricis), which he thus gives: ℞. White agaric, gr. xv; ext. opil, gr. ¼.—M. Divide into six pills. One, or two, at night. Rodolphi employs the following formula:—℞. Sodæ bicarb., gr. viij; sulphur sub., bismuth. subnitr., aa gr. ¼. For a powder. One powder every two hours. He also recommends warm alkaline lotions made with:—℞. Carb. potass., ℥iijs; alcohol., ℥iss;

aquæ, ℥xvss. Charvet has warmly praised tannin. His formula is:—℞. Tannin. gr. xv; confect. rosæ gall., q. s. Divide into 36 pills. One to four every night. M. Woillez gives four pillules of gr. iij of tannin two hours before each meal. He sometimes adds extract of rhatany, in doses of one drachm, in a julep. Beau, who believes in an antagonism between phthisis and saturnine intoxication, has vaunted preparations of lead either in pills, as:—℞. Acetate of lead, gr. xv; white agaric in powder, gr. viij. Syrup of opium q, s. for ten pills. From one to four daily. Or in powders:—℞. Acetate of lead, opium, aa gr. viij; sugar ℥ss. Divide into twenty powders. One powder night and morning. Oxide of zinc may also be had recourse to:—℞. Zinci. oxidi,, ext. hyoscyami, aa gr. iij. To be taken, when going to bed. Lately, Drs. Bourdon and Chouppe have insisted upon the employment of ipecacuanha in the sweats of phthisical patients. M. Lasegue has obtained remarkable results from general baths, by no means prolonged, but at a moderate temperature (about 35° Cent. =95° Fahr). M. Gubler, when he has no reason to apprehend albuminuria (a rare occurrence in phthisis), praises the employment of diuretics as a remedy in these cases of phthisical sweating. He gives the patient a wine-glassful daily, of *vin diuretique*. M. Landrieux prefers the diuretic wine of the Charité Hospital (1) to that prepared according to Trousseau's formula, (2) in consequence of the former containing bitter, astringent, and aromatic substances. —*La France Médicale*, Oct. 14.

The use of Iodoform in the Treatment of Venereal Ulcers.

In a letter addressed to the editor of the *Annales de Dermatolgie et de Syphilographie* (No. 6, 1874), Professor T. Profeta, of Palermo, records his experience of iodoform as a local application to hard and soft chancres and to phagedænic ulcerations resulting from the bursting of inguinal buboes. He has obtained the most excellent results both

by washing the ulcers with a solution of iodoform (two or three grains in thirty of glycerine and ten of alcohol), and by simply strewing them with the powdered drug. Of the two methods he prefers the latter, and now adopts it exclusively. Cicatrisation begins soon after the first application, and any pain which was previously present is quickly relieved. Soft chancres heal with amazing rapidity if the iodoform is applied soon after their first appearance. We should state that Professor Profeta's testimony to the value of iodoform is all the more important because he was formerly extremely sceptical on the subject, and believed the accounts of its efficacy reported by some observers to be exaggerated. His faith in it dates from the rapid recovery of one of his own friends, who had been treated with all kinds of remedies for a phagedæmic ulcer in the groin of more than a year's standing, and which healed completely in one month when dressed with iodoform alone. There are two objections to the use of iodoform noticed by Profeta. In the first place, it is an expensive remedy, and secondly, it has an offensive and penetrating odour. The latter quality prevents persons using it who wish to conceal their disease, and it is an obstacle to their entrance into society and to their visiting public entertainments. A patient of Professor Profeta was nearly mobbed at the theatre in consequence of the unpleasant smell which he diffused around him. This incident should make us careful, therefore, in using iodoform in private practice.—*Medical Times and Gazette.*

Action of Jaborandi on the Digestive Organs.

In an article inserted in the *Gazette Médicale* for March 20, Dr. Albert Robin, who has been making under the auspices of Prof. Gubler so elaborate an investigation into the properties and action of jaborandi (*Pilocarpus pinnatus*), enters at some length into a consideration of the effects it sometimes produces on the digestive organs.

Salivation, exudation, and the increase of the lachyrmal, nasal, and bronchial secretions, he observes, are normally, with rare exceptions, the sole actions induced by this drug. This is what occurs in the physiological condition of subjects who are in good health, its influence on the digestive tube being quite trifling,—the patient sweating, spitting, and weeping, without any other immediate phenomenon being produced. But many circumstances may induce a deviation in the action of the agent from its habitual type; and then it is upon the alimentary canal that this is manifested. Therefore, we may lay down an almost absolute rule that wherever the hyper-secretions habitually induced by jaborandi are absent, or undergo a notable diminution in their general and collective intensity, compensatory action is always found in the digestive canal. The phenomena which then ensue are of two kinds—first, the normal, which are nearly constant, and depend upon the general effects of the medicine, of which they are the direct consequences; they are the intense thirst which accompanies and follows sudation, and changes in the appetite, which is sometimes diminished and sometimes exaggerated. Secondly, the accidental, which appear whenever the normal action of the jaborandi is impeded by any cause, or certain precautions have been omitted during its administration; they are vomiting and diarrhœa. This division is not absolute, for vomitting may appear during normal action, but it holds good in the great majority of cases.

1. *Thirst.*—As a general rule, after swallowing a cup of tepid infusion, a sense of warmth is felt in the region of the stomach, and then thirst supervenes and still continues, even after the termination of the sweating. As the result of observation the precept may be laid down that the patients should be prevented drinking to quench their thirst, as this is a frequent cause of vomiting. A little very weak coffee, or a light infusion of peppermint, etc., may be administered.

2. *Appetite.*—This is rarely diminished, but is often increased after the termination of the sweating. One patient,

who in thirty days took jaborandi fourteen times, became more hungry after each administration.

3. *Vomiting.*—This has been met with thirty-eight times in ninety cases—*i.e.*, in 40 per cent. This proportion might lead to the belief that it is one of the normal effects. It is not so; and when the causes of such vomiting are known, it may, in general, be prevented. (*a.*) *Influence of the Dose and Preparation*—viz., when the dose is too large or the leaves too fresh. Vomiting from this cause, which is preceded by nausea, comes on some minutes after taking the infusion, and usually before the medicine has had time to produce its special effects. (*b.*) *Influeuce of Food:* It is indispensable that the patient should take jaborandi in a fasting condition. This rule is a very important one; for 70 per cent. of those who did not observe it vomited, and that even when one or two hours had elapsed since the meal. The vomiting may take place either at the commencement or in the midst of the sudation—the effects of the medicine being of course less energetic and of shorter duration. (*c.*) *Influence of the Saliva:* It is essential for the patient to be enjoined not to swallow the saliva that is produced during the salivation; for otherwise vomiting will infallibly occur. This takes place at the end of the sudation, it being almost pure saliva that is rejected. (*d.*) *Gastric Hyperscretion:* In some cases in which there has been but slight sudation, at the end of this a colourless, acid fluid is vomited, which is really gastric juice-alkaline. These cases are explained by the deviation of the habitual action of jaborandi, analogous to that which is produced in animals who do not sweat, and in whom all the effects of the agent seem to be concentrated on the alimentary canal. The acid and especially the bilious, vomitings are produced whenever sudation is not freely developed, as when it is checked by a chill just as it is about to be produced. After the vomiting, and the diarrhœa which usually accompanies it, the sudation that has been thus interrupted is either not re-established or only imperfectly so. When the existence of a chill can-

not be ascertained, an idiosyncrasy may possibly exist. It is thus seen that in the great bulk of cases the causes of the vomiting may be ascertained and avoided; and this is of importance, as for many persons the nausea and vomiting are such distressing occurrences that they would induce patients to refuse to continue the medicine.

4. *Diarrhœa.*—It not unfrequently happens that just before the sweating commences, or in a few hours after its termination, the patient has one or two soft, or even liquid stools. As after these all goes on as in the normal condition, they are of no consequence. But when there is a deviation in the action of the jaborandi, the vomiting that then occurs is always accompanied by a diarrhœa of various abundance, which is generally produced by colic. It is not, however, of long duration, ceasing, like the vomiting, after some hours, when the active principles of the jaborandi have been eliminated by the gastro-intestinal canal.—*Medical Times and Gazette.*

SURGERY.

The Occurrence of Hemorrhage after Esmarch's Method.

M. Dutrait, one of the *internes* of the Lyons hospitals, in a communication to the *Lyon Médical* for March 7 and 14, furnishes some particulars of the cases in which hemorrhage has followed the employment of Esmarch's method in that city. There, as elsewhere, he says it has taken the place of the principal assistant at operations, and he suspects that there has been some of that indiscriminateness in its adoption which characterises the reception of all novelties. At first its incontestable advantages were alone remarked upon, but now it has been employed with sufficient frequency to allow of a mature judgment being delivered, and several questions of practical importance receiving solutions. In this paper M. Dutrait confines himself to the question of the greater frequency with which

hemorrhage has been observed at Lyons. This he considers according to the three circumstances under which it may occur—viz., immediately after the operation, within twenty-four or thirty-six hours after it, and at the end of several days.

The *immediate* hemorrhage, which ensues on gradually diminishing the compression, although covering the whole surface with blood, is of little consequence, being in fact, chiefly venous; and if, as recommended by M. Gayet, of Lyons, the remaining turns of the compressing bandage are suddenly loosened, the dark venous blood ceases to flow, the smaller arteries which can then be secured only yielding blood.

The *secondary* hemorrhage, also, which takes place at a more or less remote period after the first twenty-four hours, has nothing peculiar about it after this procedure; but that which occurs within the twenty-four hours, and generally in from three to six hours (and which the author terms *hemorrhagie précoce*, as distinguished from that occurring later), is adirect result of the procedure, inasmuch as it is much more rarely met with under other circumstances. There is a general bright red oozing without any tendency to spontaneous arrest; while besides this there are not infrequently jets of blood from small arteries that have escaped the ligature. This hemorrhage is so often observed at Lyons that Dr. Dutrait can only characterise it as the ordinary occurrence; and the application of the apparatus is the same as that employed by Esmarch, except that the constricting-tube is generally replaced by several turns of bandage kept *in situ*. In the present paper notes are given of twenty-eight cases, and an observation by Prof. Courty, of Montpellier, is quoted, to the effect that so habitual is hemorrhage in his cases that as much blood is lost as was supposed to be saved. Of twenty-eight major operations in which elastic compression has been employed, loss of blood occurred in eighteen, and in twelve at least to such an extent as to com-

pel intervention. Hæmorrhage has been oftener met with in amputations than in excisions, and oftener in amputations for traumatic injury than for disease. In the author's opinion, as in that of other Lyons surgeons, the procedure may easily be dispensed with in amputations in which digital compression can be easily effected; but in operations upon the bones and joints its value is very great—in the so-called operations of conservative surgery. In fact, many operations of this kind would be impossible without its aid, and a number of small delicate ones are rendered more practicable, such as the sutures of tendons, ligatures of arteries, the removal of sequestra, the search for foreign bodies, etc., all of which become wonderfully simplified when blood no longer covers the tissues.

The hæmorrhage above described may be best avoided by observing certain precautions:—1. Tie all the arteries that are anatomically described, when they can be detected. 2. After the ligature wait a considerable time without applying any dressings. M. Ollier leaves his patient to recover himself gradually, and then returns to examine whether any hæmorrhage exists. 3. The paralysis of the vaso-motors is rendered more rapid by the employment of hot sponges, which are afterwards kept in contact with the wound for some instants. 4. If these means are thought to require too much time, a modification of the procedure contrived by M. Mollière may be adopted. After having carefully compressed the limb from its extremity, he arrests the application of the bandage at the level of the seat of the operation, and then applies another bandage a few centimetres higher up, terminating it as usual. In this way a space is kept filled with blood, which may be allowed to issue during the application of the ligatures—this greatly favouring the search for the smaller arteries, and the distinguishing them from veins. 5. Whenever it can be used without inconvenience, dressing the wound with *eau de Pagliari* gives great security. 6. The medullary arteries often bleed considerably, and sometimes exclusively; so that the

perchloride or other styptic should not be neglected. 7. In all cases gentle and methodical compression should be applied to the limb. 8. For some hours the patient should be carefully watched, as the hæmorrhage is insidious, and especially when cotton-wool dressing is employed.—*Medical Times and Gazette.*

Cases of Fracture of the Skull.

The first three cases illustrate a fact which surgeons are constantly having brought under their notice—viz., that *a fracture of the base of the skull with laceration of the corresponding portions of the dura mater and arachnoid* may occur, and yet but slight, if any, cerebral disturbance will be caused. From experiments made by Majendie it would appear that in living animals the withdrawal of the cerebro-spinal fluid causes great disturbance of the cerebral functions, by allowing engorgement of the blood vessels. It is, however, much more probable that any such disturbance ought to be ascribed to the shock of the experiment or the admission of air into the subarachnoid cavity. The escape of a watery fluid from one or both ears in cases of fracture of the skull is regarded as a grave symptom; and so, indeed, it is,—for does it not prove that the injury, if it has not reached the brain substance, has at any rate extended further inward than the cranium itself; that the dura mater with its arachnoid layer, which as it passes the roof of the ear, is very adherent to the petrous bone, has been divided; and that a communication—indirect, it is true, but still a communication—has been established between the arachnoid cavity and the surface? It is pretty certain, too, that the injury reaches beyond the parietal layer of the arachnoid; that the visceral layer is also torn, and that thus the subarachnoid space is opened. The arachnoid cavity in its normal state contains but a very small quantity of serous or albuminous fluid, sufficient only to lubricate the two surfaces of the arachnoid membrane during the movements of the brain;

while the quantity of fluid which trickles from the ear after fracture of the base of the skull is often much greater than this slight secretion into the arachnoid cavity will account for. Moreover, it may be made to flow more freely and more rapidly by anything which distends the veins of the head. This fact was proved by Mr. Hilton, in an experiment which he describes in his classical lectures on "Rest and Pain":—

"Some years ago I had in Guy's Hospital, a patient suffering from fracture of the base of the skull, and from one of his ears a thin watery fluid was pretty constantly running. It occurred to me that if I could fill this patient's head more full of venous blood, I might succeed in displacing the cerebro-spinal fluid, and that if the fracture had established an easy communication between the auditory canal and the cerebro-spinal fluid in the interior of the skull, I should be able to force out of the ear some of the cerebro-spinal fluid. I accordingly went to his bedside, and told him to take a very full breath. I then held his nose and lips, and put my fingers so as to compress his jugular veins on each side of his neck. His face became exceedingly congested and discoloured, and he commenced struggling to get rid of the pressure of my hands upon his nose and mouth. This had scarcely taken place before a quantity of thin fluid came running out of the auditory canal. and I succeeded in collecting nearly half an ounce of it The experiment was now completed. I removed my hands from the nose and mouth of my patient, and he quickly recovered his condition of repose. Thus, then, I had succeeded in displacing from the interior of the cranium a quantity of cerebro-spinal fluid (for so it was afterwards proved to be by microscopic and chemical examination), by propelling to the interior of the skull an increased quantity of venous blood."

The gravity of this symptom, beyond that of simple fracture of the bones of the skull, is dependent on the damage done to the membranes of the brain, and the increased risk

of subsequent inflammation of these membranes. At the same time, it must be remembered that in all cases of discharge of cerebro-spinal fluid from the ear, the fracture of the bone has occurred in a situation very favourable to the escape of the brain from injury. It is under the posterior two-thirds of the base of the brain that this fluid is in part situated, and is here acting as a kind of water-cushion to protect the brain from concussion and bruising. It is, no doubt, through this protecting function of the cerebro-spinal fluid that in these three cases, as well as in others like them, the cerebral disturbance has been so transient, if, indeed, as in some instances, any can be said to have existed.

GUY'S HOSPITAL.

Case 1.—*Fracture of Base of Skull—Escape of Cerebro-Spinal Fluid from both Ears—Recovery.* Under the care of Mr. BIRKETT. From notes by Mr. LOWDELL, Ward Clerk.

Jessie C., a girl nine years of age, was admitted into the Martha ward on December 2. Shortly before admission she had fallen downstairs, and had been taken up insensible. When admitted there was a clear watery fluid flowing from the left ear as she was lying on her side; her countenance was pale, and her pupils were dilated. The next morning she vomited a little. The pallor of her face had diminished. She had slept well, and looked better. Her temperature was 99-5°, her pulse 108, and respirations 18. The discharge from her ear was still going on.

December 6—There is scarcely any discharge from the ear to-day. She has taken very little but water.

8th.—Discharge from the ear still continues. Her neck below the ear is sore and inflamed. Lies always on the right side. Her pupils are equal. There is no paralysis, no delirium, and no headache.

15th.—The inflammation about the neck has now disappeared. There is a drop or two of cerebro-spinal fluid in the auditory meatus. Pulse 96; respirations 22; temper-

ature 98·6°. Still kept on fluid diet, and still has ice applied to her head. She is cheerful and lively.

18th.—Going on well. Was allowed some potato and toast to eat, and some tea to drink.

23rd.—Sits up in bed now. Applications of ice to head discontinued. Seems very well.

January 6.—Is dressed to-day, and running about.

February 2.—Is up the whole day; runs about the ward, and is quite well.

University College Hospital.

Case 2.—Fracture of Base of Skull—Clear Fluid from Ear for twenty-four Hours—No Head Symptoms beyond Pain—Convalescing. Under the care of Mr. Heath.

Anne P., aged eighteen months, was admitted on the afternoon of October 15, 1874. At a quarter to one, previously, the child had fallen from a window upon its head on to some flagstones, a distance of about twelve feet. It cried shortly after it was picked up, and bled from the nose and left ear. It was brought to University College Hospital, and admitted at about one o'clock. The mother said it was insensible for about ten minutes.

On admission the child was conscious, and cried when touched. It moved its legs and arms freely. There were no signs of any paralysis. Its skin was pale and cold. There was a swelling over the left eye, which extended slightly into the left eyelid. Both pupils were widely dilated, equal in size, and insensible to light. There was bleeding from the left ear, and from both nostrils. That from the nostrils stopped soon after admission, but that from the ear went on slightly until seven in the evening. There was no subconjunctival effusion. Temperature 96·4°; respirations 13 per minute. Breathing somewhat stertorous; slight blowing of lips. Ordered to take a powder of one grain of calomel every third hour.

The child vomited up the first powder which was given to it, but retained one which was given immediately after-

wards. Wrapped up in flannel; hot water bottles to feet and body; ice-bag to head. 10 p.m.: The child up to now has cried out occasionally. It lies with its eyes closed, but readily cries out when touched. The left eyelid is too much swollen to examine the pupil, but the right pupil acts readily to artificial light. At this time some clear fluid was discovered in the left concha. By turning the child's head round, this was tipped into a test-tube, but on testing it with Fehling's solution, no sugar was detected.

16th.—Patient was sick after the twelve o'clock powder, and again between this and 6 a.m.; bowels open twice. There is still some fluid in the concha, but it is not flowing freely. No ocular extravasation. Both pupils widely dilated, and insensible to light. Child lies quiet, but cries when touched. There is some dried blood about the nostrils this morning. The breathing is now twenty-two per minute, and quiet. Temperature 98·6° ; pulse 120. There is considerable bruising about the left eyelid. The child is in other respects about the same as yesterday; it has taken a little milk at intervals.

17th.—Child slept quietly last night. Bowels have been opened once. Has been taking milk at intervals. Pupils widely dilated, insensible to light. Child lies quiet, but cries when touched. Temperature 97·40; pulse 110; respirations 22.

18th.—Bowels open in the night; motion of a dark green colour. Powder to be taken three times a day.

19th.—Bowels open once again in the night. Child keeps crying, but this is probably due to the ice-bag. Pupils dilated, sensible to light. Temperature 97·4° ; pulse cannot be felt at wrist.

20th.—Patient passed another motion last night of a dark green colour. Temperature 97°. Pupils dilated, sensible to light. Child appeared more comfortable this morning.

22nd.—Going on well. To be made an out-patient.

Prolapse of Funis—Conclusions from an Examination of One Hundred and Sixty Cases.

Dr. Geo. J. Engelmann (*Amer. Jour. Obstet.*, May July, 1874) furnishes an exhaustive paper on prolapse of funis based upon one hundred and sixty cases. The following are the facts and laws set forth by this study:

The causes of the prolapse of the umbilical cord have mainly proved to be such circumstances as prevent the

complete filling of the pelvic basin, and the close adaptation of the lower segment of the uterus to the presenting part. One of the more important of these circumstances is the shape of the presenting fœtal part itself. We thus find that foot presentations are most frequently complicated by prolapse, whereas vertex presentations are least threatened. The fœtal appendages are of secondary and minor importance; undue length of the cord, its marginal insertion, or attachment of the placenta low down in the uterus, can never be the direct cause of the accident, Excess of liquor amnii is alone to be feared. Some stress is to be laid on abnormity in shape and position of the womb; much more upon twin births. More dangerous than any of these is the contracted pelvis, which is proved by measurements and numbers to be the main cause of prolapse of the funis, directly and indirectly—a fact hitherto generally accepted, but never yet clearly established. These cases disprove the general statement that prolapse is far more frequent among multiparæ than among primiparæ. They show that these two classes are equally liable to this accident.

The law governing the location of the prolapse as of importance is here first treated of.

Post-mortem examinations revealed only the lesions due to death from asphyxia; nothing characteristic for death caused by prolapse of the cord.

The prognosis we can give is somewhat better than generally allowed—most favorable for foot presentations, after these for shoulder and tranverse presentations, while vertex presentations are more dangerous than any; the case being under all circumstances more threatening when occurring in a primipara. In treatment of our cases, the high importance of postural treatment has been developed; more an adjuvant, however, than as a method in itself of dealing with the prolapse.

Version is comparatively the most successful in all operations, and should be more frequently resorted to when any choice of method is given, as in head presentations. The application of the forceps and reposition of the cord are less to be relied upon. But in any course determined upon it must be borne in mind that the success of all operations by which we seek the preservation of the child whose life is threatened by compression of the prolapsed cord is in a measure dependent upon the judicious use of chloroform; its application to full surgical anæsthesia.—*Detroit Review of Medicine.*

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1875.

THE QUEBEC PHARMACY ACT.

Quite an excitement has prevailed amongst the Druggists and Apothecaries since the passing of the Pharmacy Act, and we are pleased to observe that gentlemen desirous of following the business of an Apothecary and Druggist are by the terms of that act obliged to qualify. This is the more gratifying as these gentlemen have systematically ignored the law as it existed prior to the passing of the Pharmacy Act, and refused to qualify on the terms exacted by the College of Physicians and Surgeons of Lower Canada. We give below a notice of the Pharmaceutical Association issued by the Council of that body :

NOTICE is hereby given that at the last Session of the Parliament of the Province of Quebec, an Act to amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec, cited as "The Quebec Pharmacy Act of 1874," was passed, said Act giving full control and licencing powers to the Council of the said Association. On and after the first day of May, 1875, it will be unlawful for any person to keep open store for the retailing, dispensing or compounding of the poisons enumerated in Schedule A, or to sell or dispense the said poisons, or to engage in the dispensing of prescriptions, or to assume or use the title Chemist and Druggist, or Chemist or Druggist, Apothecary or Pharmaceutist, or Pharmacist or Dispensing Chemist, within this Province, unless he be registered in accordance with the provisions of this Act as a Licentiate in Pharmacy. It will also be unlawful to employ any clerk or apprentice in any shop or store for the sale of such poisons, or in the dispensing of medicines, except such clerk or apprentice be registered as required by this Act.

Persons offending against the provisions of this Act are liable to a penalty of fifty dollars.

If any person shall falsely represent by any name, title or description that he is registered under this Act, or engage himself as a certified clerk or as a certified apprentice, not being registered as such, he will, upon con-

viction before a Magistrate, be liable to the respective fines as provided for by this Act.

On and after the first day of May, 1875, it will be unlawful to keep or sell any of the poisons named in Schedule A, unless the box, bottle, vessel, wrapper, or cover in which such poison is contained be distinctly labeled on a black label with the name of the article and the word "Poison," and with the name and address of the seller of the poison. And it will be unlawful to sell any such poison to any person unknown to the seller, unless introduced by some person known to the seller; and on every such sale of such article the seller shall, before delivery, make, or cause to be made, an entry in a book to be kept for that purpose, stating in the form set forth in Schedule B of this Act, the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, and the purpose for which it is stated by the purchaser to be required, to which the signature of the purchaser and of the person, if any, who introduced him, shall be affixed; and any person selling such poison otherwise than as herein provided, shall, upon conviction before a Magistrate, be liable to a penalty not exceeding twenty-five dollars, and for the purpose of this section the proprietor on whose behalf any such sale is made by any apprentice or servant, shall be deemed to be the seller.

All persons in business on their own account, prior to the passing of the Act, are entitled to be placed on the Register, and to be certified as "Licentiates in Pharmacy."

All clerks after satisfactory examination before the Board of Examiners of the Association, will be entitled to be placed on the register as "Certified Clerks." All certified clerks, before they can become Licentiates in Pharmacy, must produce evidence that they have been at least four years in a Drug Store, and have attended two Courses of Lectures on Chemistry, two courses on Materia Medica, and one course on Botany.

Every youth, before he is taken as an apprentice by a Licentiate in Pharmacy, shall produce satisfactory evidence of a good moral character, and pass a preliminary examination in the English, French and Latin languages, and arithmetic, after which he shall be registered as a "Certified Apprentice."

Every Licentiate in Pharmacy shall, every year, pay to this Association a fee or subscription of *five dollars* per annum, every certified clerk shall pay to the Association an annual fee of *three dollars*, and every certified apprentice shall pay to the Association an annual fee of *one dollar*. Such fees shall be due on the first day of May in every year, and any Licentiate, Clerk or Apprentice not paying such fee before the first of July, shall be removed from the register, and lose the privileges conferred on him by this Act, but he shall be restored to all his former privileges by the Council of the Association on payment of a fine not exceeding five dollars, if paid before the first of the following October.

Registrations will be made and Certificates granted by the Registrar on application and payment of the required fees; further information, if required, will be given, and copies of the "Poison Book" sold by the Registrar.

ANNUAL CONVOCATION OF McGILL UNIVERSITY.

The Annual Convocation of the McGill University was held in the William Molson Hall of the University, on Wednesday the 31st March, 1875, for conferring degrees in Medicine and Law. There was a large assemblage of the friends of the University, the Hall being filled with ladies and gentlemen. Shortly after three o'clock, the members of convocation passed through the hall and ascended the platform, Peter Redpath, Esq., in the absence of the Chancellor of the University, presiding. Amongst those present we noticed the Most Reverend The Metropolitan; Hon. Attorney-General Church; Hon. Jas. Robertson; Sir A. T. Galt; Solicitor-General Angers, and others.

The meeting was opened with prayer, after which W. C. Baynes, Esq., B.A., Sec'y., read the minutes of the last meeting of Convocation.

The Dean of the Faculty, Geo. W. Campbell, A.M., M.D., then read the following report of that Faculty:

The total number of students attending the lectures of this Faculty during the past session was 129, of whom there were from:

Ontario	67	New Brunswick	3
Quebec	48	P. E. Island	1
Nova Scotia	3	West Indies	2
		United States	5

The following gentlemen, 32 in number, have passed their primary examinations on the following subjects: Anatomy and Physiology, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany and Zoology, their names and residences are as follows:

Campbell James, ...London, O.
Colquhoun George, ...Grantley, O.
Cook Guy R., B.A .....Aultsville, O.
Cooke Wm. Henry, ...Drummondville, Q.
Cream Thos. N., ...Quebec, Q.
Crothers Wm., ...Clarenceville, Q.
Eberle Henry, ...Morpeth, O.

Gray John S., ...Heckston, O.
Greer Thos. A.,.....Colborne, O.
Hunt Henry,.....Notfield, O.
Johnson Jas. B.,.....Weston, O.
Lang Christopher McL.,.....Owen Sound, O.
Levi Reuben,.....Montreal, Q.
McIlmoyl Henry A.,.....Iroquois, O.
MacDonnell Richard L., B.A.....Montreal, Q.
McRae George,..... .....Renfrew, O.
Metcalfe Henry J.....Riceville, O.
Munro Alex. .....Montreal, Q.
Murray Chas. H., B.A.....Montreal, Q.
Powell Robert W.....Ottawa, O.
Reddy Herbert L., B.A.....Montreal, Q.
Ritchie Arthur F., B.A.....Montreal, Q.
Robinson Stephen J.....Brantford, O,
Ross Wm. D.....Ottawa, O.
Secord Levi..... .....Brantford, O.
Smith Wm.....Lachute, Q.
Snider Fred. S.....Simcoe, O.
Stevenson Chas. N.....Sarnia, O.
Stevenson Sabine.....Cayuga, O.
Storrs Arthur.....Cornwallis, N. S.
Stroud Chas. S.....Montreal, Q.
Young Philip R.....Clarenceville, Q.

The following gentlemen, 31 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University. These exercises consist in examinations both written and oral on the following subjects —Theory and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and diseases of women and children, Medical Jurisprudence and Hygiene,—and also Clinical examinations in Medicine and Surgery conducted at the bedside in the Hospital.

The names of the successful candidates, their residences and the subjects of their theses, are as follows :—

NAME.	RESIDENCE.	THESIS.
Bain Hugh U., B.A.....	Perth, O.	Clinical Reports.
Benson Joseph B.	Chatham, N.B.	Typhoid Fever.
Bomberry George E.	Tuscarora, O.	Delirium Tremens.
Brossard Jean Bte.	Lapralrie, Q.	Hysteria.
Burland William H.	Montreal, Q.	Hospital Reports.
Christie John H., B.A.	Lachute, Q.	Vermes Intestinorum.

Dorland James.....Adolphustown, O....Clinical Reports.
Dowling John F.....Appleton, O.....Typhoid Fever.
Duncan George C.....Port Dover, O.....The Sphygmograph.
Falls Samuel K.....Carp, O.....Acute Rheumatism.
Gilbert Henry L.....Sherbrooke, Q.....Signs of Pregnancy.
Goodhue Perkins J.....Danville, Q.....Congenital Syphilis
Graham Kenneth D.....Ottawa, O.....Morbus Coxarius
Hanington Ernest, B.C.....Shediac, N.B.....Clinical Notes.
Hanover William.....Packenham, O.....Acute Pleurisy.
Hume William L.....Leeds, Q.....Acute Peritonitis
Jamieson Thomas A.....Lancaster, O.....Diagnosis.
Kearney William J .....Montreal, Q.....Diseases of Menstruation
Langlois Onesime X.....Windsor, O.....Duties of the Accoucheur
Mattice Richard J.....Moulinette, O.....Acute Pleurisy.
McDermid William.....Martintown, O.....Vaccination.
Meek James A.....Cornwallis, N.S.....Enteric Fever.
Monk George H.....Montreal Q.....Pericarditis.
Nelles James M.....Brantford, O.....Typhoid Fever.
Ross William D.....Ottawa, O.....Tubercular Meningitis.
Scott William F.....Hull, Q.....Locomotor Ataxy.
Tunstall Simon J. B. A.....St. Ann's, Q.....Surgical Cases.
Ward Michael O'B.....Montreal, Q.....Cataract.
Wigle Hiram.....Essex Centre, O.....Abdominal Section.
Woods Edmund J. J.....Aylmer, Q.....Percussion and Auscultation.
Woolway Christopher C.....St. Mary's, O.....Modern treatment of Fever.

Three of the above-named gentlemen, Messrs. Burland, Gilbert and Woolway, are under age. They have, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only await their majority to receive their Degree.

The following gentlemen passed the examination Theoretical Chemistry:

Henry Greaves,	A. C. Fraser,	W. B. Elliot,
G. Cannon,	Frank L. Miner,	R. Collison,
John Brodie,	C. L. Cotton,	D. H. Cameron,
G. E. Armstrong,	G. A. Park,	L. A. Fortier,
J. A. Lane,	D. J. Quigley,	J. R. McLaren.

Students who have passed the examinations in Botany and Zoology:

BOTANY,

Class I.	Class II.	Class III.
Ayer,	Faulkner,	Riley,
Butler,	Ryan,	Morden,
Cameron, T. D.,	Cameron, P.,	McLeod, J.,

McQuigan, Guerin, Fraser, McCann, McKinley, Vineberg, McLaughlin, Pinsonneault. Campbell, Gibson,

Stafford, McLeod, J. A., Greenwood, McCrimmon, Gillis, Hutchinson, Henwood, Smith, Chisholm, Rutherford. Kirk.

Collison, Weir, Irwin, Brennan, Fenwick, Farley McDonald, Fogg.

ZOOLOGY.

CLASS I.—Butler

The Medical Faculty Prizes are three in number:

1st. The Holmes Gold Medal, awarded to the graduate who receives the highest aggregate number of marks for the best examinations, written and oral, in both Primary and Final branches as also for an inaugural thesis.

2nd. A prize in books awarded for the best examination, written and oral, in the final branches. The gold medalist is not permitted to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

The Holmes Gold Medal was awarded to Simon J. Tunstall, B.A., St. Ann's, P.Q.

The prize for the final examination was awarded to Joseph B. Benson, Chatham, N. B. Christopher J. Woolway was prevented by illness on the day of the public written examination from competing for honors, but he deserves special mention as he received the full number of marks at his clinical and oral examinations. Mr. Duncan also deserves special mention for his great mechanical ingenuity in constructing a sphygmograph with improvements of his own for measuring the force and undulations of the arterial Pulse.

The prize for the primary examination was awarded to Charles S. Murray, B.A., Montreal, Q. and Robert W. Powell, Ottawa, O. These two gentlemen received an equal number of marks.

The following gentlemen, arranged in the order of merit, deserve honourable mention:—In the final examination Messrs. Hanington, Hume, Bain, Ross, Falls, Ward, and Scott.

In the primary examination Messrs. MacDonnell, Ritchie, Smith, Levi, Young, Reddy, Secord, Snider, Ross, Hunt, Guy R. Cook, and Sabine Stevenson.

PROFESSOR'S PRIZE.

Botany.	Zoology.
Ayer.	Butler.

Prize for the best collection of plants, C. L. Cotton. Those deserving honourable mention in Botany, Messrs. Butler, P. D. Cameron, and McQuigan. For collection of plants well prepared and determined, honourable mention, James Bell.

PRACTICAL ANATOMY.

Demonstrator's prize in the Senior Class, awarded to John Brodie.

Those deserving honourable mention for care and assi duity, Messrs. A. C. Fraser, James Bell, F. L. Miner, G. E. Armstrong, and William H. Howie.

Junior Class prize awarded to N. Ayer. Honourable mention, Messrs. A. Jamieson, W. B. Gibson, Fred Campbell, F. J. Stafford, and J. J. Guerin.

The Graduates were then called forward and the *Sponsio Academica* was administered by Professor Craik, and each in turn presented to Vice-Chancellor Dawson, who performed the ceremony of Capping, and delivered to each candidate his diploma of Doctor of Medicine and Master of Surgery.

At the conclusion of this ceremony Dr. James M. Nelles of Brantford, Ont., delivered a valedictory address on behalf of his associate Graduates. Dr. Osler, Lecturer on the Institutes of Medicine, then addressed the graduating class on behalf of the Medical Faculty.

After the proceedings of the Faculty of Law, and an address from Principal Dawson, the meeting was brought to a close by the Benediction pronounced by the Right Reverend Bishop Oxenden.

THE LATE DR. WAGNER.

It is our painful duty to announce the death of our old and respected friend and brother practitioner William H. Wagner, M.D., which sad event took place at his residence Dickinson's Landing, Ont., on Wednesday the 7th April, instant, in the 61st year of his age.

The subject of this notice graduated at McGill University in the year 1844, although he previously held a diploma from Jefferson Medical College, Philadelphia, having followed his studies at that Institution. Dr. Wagner possessed a large amount of common sense, a commodity which is often sadly wanting; he was an enthusiast in his profession and always kept up with the progress of the day. As a surgeon he was a cool operator and ready at resources—highly esteemed and respected by the people in his immediate neighborhood he has left behind him many sorrowing friends. Although it is sometimes a difficult matter to fill the place of an old and experienced practitioner, yet in this instance the people of the Landing are fortunate in having amongst them the son of the deceased, Dr. A. D. Wagner a young gentleman of high promise who graduated three years ago at McGill University.

TRANSFUSION.—The transfusion of blood is a medical experiment which should only be tried under the best advice, and even then sometimes produces distressing results. A man named Simpson was, according to one of the American papers, the other day nearly dead from consumption, when Dr. Hopkins, who was attending him, decided to try the

effect of a transfusion of blood. As none of Simpson's friends or neighbours were willing to shed their blood for Simpson's sake, Dr. Hopkins had no alternative but to use Simpson's goat for the purpose, and accordingly, opening the patient's arm injected about two quarts of the goat's blood into the sufferer's system. Simpson began immediately to revive; but his revival was marked by the most disagreeable symptoms. No sooner had his strength returned than he jumped out of bed, and, twitching his head about after the fashion of a goat, made a savage attempt to butt the doctor. Dr. Hopkins, after Simpson's head had been plunged against his stomach three or four times with the force of a battering-ram, took refuge in an adjoining room, whereupon Simpson banged his head against the door with such violence that he would have soon smashed the panels but that his attention was diverted from the doctor by his mother-in-law, who at this moment entered the room. One well-directed blow from Simpson's head floored the unfortunate old lady, and then, as she lay screaming for help, Simpson frolicked round her, making efforts to nibble the green flowers which formed the pattern of the carpet. At last he was securely tied down, but alarmed the whole neighbourhood by his frightful "ba'as." Distressed by Simpson's condition and the reproaches of Mrs. Simpson, Dr. Hopkins determined to undo the evil if possible, and, by heavily bribing an Irishman who was Simpson's servant, procured fresh blood from the faithful domestic and injected Simpson a second time. Simpson is now quite well, but shocks his old Republican friends by displaying an irresistible tendency to vote the Democratic ticket and speaks with a strong brogue. He has only once butted since the last "transfusion." On going into church a few Sundays ago one of the remaining corpuscles of the goat's blood got into his brain, and he butted the sexton half-way up the aisle, recovering himself, however, in time to apologize just as the indignant sexton was about to floor him with a hymn book.—*Pall Mall Gazette.*

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Cerebro-Spinal Sub-arachnoid Hæmorrhage, proving suddenly fatal after several attacks of temporary loss, of consciousness. — Autopsy. By GEORGE A. BAYNES M.D., CM.

Read before the Medico-Chirurgical Society 2nd Aprll, 1875.

On the night of the 3rd of March I was called on to see W. T. S. Not being at home the messenger went for Dr. Scott who saw him after having recovered from what was said to be a faint or fit, the doctor ordered him to bed and to receive a cup of tea.

On my return at 11 P.M., I went to the club and saw him he was lying in the Strangers' Room, on pillows; he was much excited being very talkative and throwing his legs about. On enquiry I found that he had had one fit or faint early in the evening, losing consciousness completely but had recovered almost immediately. After some little time he was dressed and placed in a cab to be taken home, when he said that he felt another faint coming on him, and only had time to step from the cab when he fell prostrate on the sidewalk. Calling some of the waiters he was carried into the club again and placed in the strangers' room where I found him. After conversing some little time we dressed him and drove to his rooms in Bleury street. I gave him a purge of calomel and jalap, after which he soon fell asleep, but was very restless all night.

March 4th.—Saw him both morning and evening to-day; at both visits he was dull and very heavy looking, dozing at

intervals. Complained of pain at the epigastrium and nape of the neck, the latter he attributed to the fall after getting out of the cab the night previous. In the evening I gave him a couple of cathartic pills, the purge of the night before not having operated. I remained with him until he was sound asleep.

March 5th.—Saw him at 11 A.M. He still had a very dull, listless appearance ; bowels moved once,—complained of dyspepsia. He had been subject to indigestion for some time, for which I had previously prescribed. He asked for more of the pills I used to give him, they were :

℞.	Ferri redacti	gr. xl.
	Zinci Valerianatis	gr. xx.
	Strychniæ	gr. i.
	Glycerini	q. s.

Mix and divide into 20 pills ; one three times a day after meals.

I also gave him a dose of Bromide of Potassium at night,

March 6th.—Much better to-day, but still very nervous and having a presentiment of another fit. Walked about the room very restlessly from one seat to another ; continued the pills with a dose of Bromide at night.

March 7th. — Very much better to-day ; more lively. Went out for a drive. Slept well the previous night—continued the same treatment.

March 8th.—Still improving ; walks with greater ease than previously, but still is nervous and fears another faint, so I proposed a consultation, asked him who he would have ? said, Dr. Campbell. I called on the Doctor and made an appointment for the morrow ; continued the same treatment with the Bromide but stopped the strychnine pills.

March 9th.—Dr. Campbell saw him in consultation with me to-day ; he told him that he had slight congestion but he would recover ; he must take this as a warning, and to be very guarded in the future as to his living. Ordered him to continue the Bromide of Potassium with spt. of Chloro-

form; to get another purge of five grains of Calomel in a cathartic mass.

He walked very fairly to-day but rather weak. Dr. C. pronounced his heart sound.

March 10.—Much improved to-day, more lively; walked talked, ate and drank well. Went out for a drive; complained of no pain whatever. Same treatment was continued.

March 11th.—Saw him this A.M. He was remarkably well. Went out driving again to-day, and wanted a beefsteak, but I allowed him nothing but slops. In the evening about 10 I was sent for to see him, as he had another fit. I went at once, but he had just recovered as I entered the house, the messenger did not wait for me but went for Dr. Campbell, who could not attend; so the messenger went on to Dr. Howard, who arrived almost immediately after I did, and prescribed:

℞ Ammon. Bromide ℥ij; Capsici Tinct. ℥iv;
Syr. Limonis ℥j; Aquae ad ℥vj.

A tablespoonful every hour until quiet or sleep ensues

March 12.—Very little better to-day, weak and nervous, and has a presentiment of coming evil. Wishes to make his will. Saw him in the evening, was a little quieter; left him asleep; all evening he complained of a pain in the back, Continued the Bromide of Ammonium and Capsicum mixt.

March 13.—Still very nervous and restless,—so much so that I proposed to him to see Dr. Howard again, which he consented to. Complained of great pain in the back of the neck and spine, for which I dry-cupped him. It seemed to give him instant relief, for he fell into a quiet sleep and continued so all night. Stopped the Capsicum mixture to-day and returned to the Bromide of Potassium and Spirits of Chloroform.

March 14th.—Dr. Howard saw him in the afternoon. On examination found his heart healthy, only excessively nervous.

After the Doctor left he talked quietly and walked with

out faltering; seemed very much relieved in mind when his heart was pronounced healthy. Examined his urine but found nothing remarkable. Continued the Bromide and Chloroform.

March 15.—Better to-day; went out for a drive,—ate slept and walked well. In the evening complained of pain in his back, for which I dry-cupped him again.

March 16th.—Still continues well. Went out driving again, ate and walked well; still had a little pain in the back of the neck, this pain was aggravated at night, so I cupped him again, affording the same relief which lasted all night; this evening, for the first time, he complained of pain in the back of the thigh—continued the Bromide and the Spirits of Chloroform.

March 17.—He was marvellously well all day. Talked of starting for England the following week. Drove himself out with a pair of horses. Seemed very strong and well; no pain in the back,—ate well, and walked as if nothing was the matter, but said he had a little Rheumatism in the back of the thigh.

March 18th.—I was summoned at 1.30 A.M., to attend him in another fit. On my arrival I found him dead.

Family history was good. He had served in the Madras army for about 7 years.

He told me he had suffered while in India from an attack of Hypochondriasis, which was very troublesome both to himself and his medical attendant. While here I had treated him for some minor complaints, but with these few exceptions he had had uninterrupted health.

AUTOPSY —36 hours after death; weather cold; cadaveric rigidity very marked; body well nourished and fat; muscular system greatly developed; uniform purple discoloration of all the posterior part of the body.

CHEST.—I may mention here *en passant* that the left pectoral muscles were absent.

Lungs large—filled with dark blood, slight nodular, fibroid induration at the apex of the right lung—largest and hardest in the left apex.

HEART—not distended with blood; substance flabby—of good color; no opacities or discoloration visible in its cut substance, nor under the endocardium, nor in the fleshy columns; three or four minute white patches of atheroma in the substance of the fibroid ring to which the semilunar segment and anterior mitral segment are attached; no roughening of the surface of the walls on either side of the heart; no disease, in fact, in the heart except the patches of atheroma above mentioned; lining membrane of the ventricles and arch of the aorta deeply stained of a mahogany red from imbibition. Some atheromatous patches without calcareous matter under the lining of the aortic arch. No aneurism of the thoracic or abdominal aorta.

LIVER—large, venously congested, not corrugated nor indurated. Both kidneys normal: one much congested throughout and of dark red color, like liver. Spleen healthy.

HEAD.—Little blood escaped in cutting the scalp and calvaria. Encephalon filled the skull; the membranes were closely applied to brain; the dura mater, normal: not injured at all by the saw or chisel. Convolutions of the convexity and sides of the brain flat and considerable transparent fluid in the sulci and meshes of the pia mater. Extensive extravasation of blood at the base of the brain in subarachnoid space, most abundant and forming thickest layer upon and around the Pons Varolii, and in the neighborhood of the upper and basilar surface of the Medulla oblongata, and upon and around the Crura Cerebri. The extravasation extends forwards in the Pia Mater, as far as the extremity of the Olfactory bulbs, backwards upon the under surface of the cerebellum to its posterior border. It is much thinner in both places than at mid base. On opening the Sylvian fissures, blood is found extravasated in them—more on the right than on the left side—and also along the longitudinal fissure, from the optic commissures in the course of the anterior cerebral arteries. This blood is nearly all black and coagulated; some more recent-looking, redder and not perfectly coagulated, lies on the

surface of the larger, solid extravasation at mid-base [i.e. on and around the Pons Varolii.] The membranes cover all this blood and none of it is effused into the cavity of the arachnoid. The blood is seen to extend down the vertebral canal, forming a black envelope around the spinal cord, in the situation of the cerebro-spinal fluid. Having removed the brain, a few detached superficial small extravasations, as if from minute ruptures, are seen on the sides of both hemispheres, especially over the posterior lobes, but not reaching the upper surface of the brain.

On slicing the cerebrum, the punctæ vasculosæ are not large nor numerous; the cerebral substance is not at all congested; both lateral ventricles filled with transparent serum, of the colour of weak claret and water. A long, narrow, black coagulum extends from the central cavity of the right lateral ventricle in the course and along the external border of the choroid plexus down into the middle cornu, and back into the posterior cornu. The same appearance is found in the left lateral ventricle; the 3rd ventricle is filled with a small, black blood clot which can be traced thence into the 4th ventricle, which cavity is also filled with coagulated blood. In none of the ventricles is there any discernible laceration of the brain-substance, the commissures of the 3rd ventricle being intact. No extravasation is found in the substance of the brain anywhere.

On examining the blood vessels of the brain at the base many of them present opaque, white patches of atheroma. On the left vertebral artery, a circumscribed white fusiform dilatation of the vessel is visible, the enlargement is found on slitting up the vessel to be chiefly one of thickening of the coats at this point; a similar one is seen at the anterior part of the basilar, and upon slitting up the basilar an irregular opening was found about the middle of its course and on its right side in the neighborhood of where it gives off transverse branches; it is difficult to decide if this opening had been made by the accidental cutting off with the scalpel of one of these branches: but there appears to

be some pouching of the walls when the vessel is examined from the inside; no sac is found attached to the basilar artery, but that vessel is covered by and occupies about the centre of the thickest extravasation.

On opening the spinal membranes they are found blackened by extravasated blood within them throughout the entire length of the cord. On removing this and slitting up the Dura Mater Vertebralis, a thin layer of coagulated black blood is found completely enveloping the cord down to the cauda. No blood is extravasated outside the spinal membranes.

Some observations on the Preceding Case of Cerebro-spinal Meningeal Hæmorrhage. By R. P. HOWARD, M.D., etc., Professor of Medicine, McGill University.

Read before the Medico-Chirurgical Society, Montreal.

Having twice seen, during his illness, the subject of the interesting paper just read by Dr. Baynes, and having pronounced a favorable prognosis, I gladly avail of the opportunity of making a few observations on the case.

About 11 P.M., on Friday the 12th March, immediately after his third seizure, I found Mr. B. lying on the floor, surrounded by his Medical attendant and other friends. He appeared much alarmed, and talked in an excited but rational manner. His face was natural; head and general surface of normal temperature; no paralysis existed; the tongue did not deviate when protruded; the pupils were alike, and of average size; articulation was distinct; the cardiac sounds were free from murmur, and, beyond moderate excitement of the heart, and considerable mental agitation, nothing else was noticed. He had taken only a sip of brandy and water just before the paroxysm set in, and it was of such short duration, that before the early arrival of Dr. Baynes it had disappeared.

Again, in consultation, I saw the deceased upon the

14th. He exhibited no signs of cerebral disease; he lay, however quite flat on his back and did not move his head about nor raise it from the pillow while drinking from a cup which he held in his hand. This attracted my attention as it suggested the idea that he either could not or would not raise his head. He complained of feeling very weak, and of having pain in his back; he slowly, and rather as if it caused pain, sat up that I might examine his vertebral column. No tenderness on pressure or percussion, and no projection of a spinous process, curve or depression existed. The cardiac impulse, rythm and sounds were again found normal, and but for pain in the back and the weakness, which appeared to me out of proportion to the duration and suspected nature of the seizures, he appeared to be almost well.

In reply to the anxious questionings of his friends, I gave it as my opinion that the attacks were probably of the nature of epileptic coma or vertigo, and that they were not due, as the patient had feared, to disease of the heart.

The recurrence of the seizures; their short duration; the initial pallor of the countenance, and the absence of paralysis and mental impairment in the intervals between the attacks, suggested the probability that they were the *pseudo-apoplectic phenomena* of *Fatty degeneration* of the heart. However, the youth of the patient, the absence of the physical signs of that affection and the circumstance that he had not previously experienced any symptoms of a weak heart appeared sufficient to exclude such a view. *Cerebral hæmorrhage* seemed to be incompatible with the great suddenness of invasion, with the brief duration,and the complete and prompt removal of the loss of consciousness, with the entire freedom from defective or perverted cerebro-spinal function, whether intellectual, motional or sensory after the seizures; and especially with the frequent recurrence of the symptoms. *Uræmia* was rendered improbable by the absence of albuminuria, œdema of eyelids or ankles

and of non-compensating hypertrophy of left ventricle, and by the transient nature of the attack, and the non-co-existence of epileptiform convulsions.

It was for these reasons that I fell back upon the conclusion that the case was one of "Epileptic Coma, or Vertigo," that variety of *petit mal* in which there is recurring but transient loss of consciousness without convulsions.

Meningeal hæmorrhage not caused by violence nor by the breaking through of a cerebral hæmorrhage,—i. e., primary meningeal hæmorrhage,is generally by pathologists regarded as of rare occurrence, although Dr. Lidell in his "Treatise on Apoplexy" calls this in question, and relates three undoubted examples of it, and one additional instance respecting which only slight doubt as to it having been caused by violence existed. However, I cannot help thinking that his experence is exceptional in this matter.

The *diagnosis* of Hæmorrhage into the *meninges* from hæmorrhage into the *cerebral substance* can only very rarely be made, and then it is rather a lucky guess than a reliable diagnosis.

"The following combinations of phenomena," according to Dr. Reynolds, who is copied by most authors, indicate a probability of Arachnoid hæmorrhage.

1st. Profound coma without paralysis, or with very slight general paralysis.

2nd. Profoundcoma without paralysis but with rigidity or clonic spasm.

3. Hæmiplegia without implication of the facial muscles.

4. An apoplectic attack without anæsthesia.

5. An apoplectic attack of which the symptoms are sometimes interchangeable and assume a remittent course.

6. Imperfect coma with general paralysis.

Reynolds also says that *severe pain* in the *head* not uncommonly precedes the attack for a certain time; that the seizure is not generally so sudden as in Congestive Apo-

plexy or in Cerebral Hæmorrhage; and that "the symptoms are developed seriatim, and rarely simultaneously."

Now, in this case, very many of the above characters failed.

(1). The illness was not preceded by severe pain in the head; (2). The seizures were sudden; (3.) The symptoms did occur simultaneously, and (4) the combinations Nos. 2, 3, 4 and 6 did not obtain. Those observed were complete loss of consciousness, which, however, was of short duration, and remissions, or rather intermissions in the course of the illness.

It appears to me that Reynolds has confounded together true primary sub-arachnoid hæmorrhage and hæmorrhage into the arachnoid cavity consequent upon chronic inflammation of the dura mater, the pachymeningitis interna of Virchow. In the latter affection circumscribed pain in the head precedes the other symptoms for a considerable time; the loss of consciousness, impairment of motility, etc., supervened slowly, are not developed simultaneously, and frequently remit in severity; hemiplegia occasionally occurs but it is apt to be incomplete; the affection is observed most frequently in the course of severe forms of insanity, and involves almost always the convexity of the brain.

This variety of Meningeal hæmorrhage must be excluded, and our future investigations must be directed to that much more *rare* affection primary subarachnoid hæmorrhage, of which the case under discussion is an example, before its diagnostic characters can be accurately determined. Unlike the former, this variety appears to be far more frequently observed at the *base* of the brain, and the blood readily diffuses itself more or less symmetrically and widely all over the base, and sometimes down the spinal membranes and up into the ventricles—facts which may yet assist in distinguishing the two affections, the localized hæmorrhage into the arachnoid cavity on the convexity of the brain, and

usually over one hemisphere, from the diffuse extravasation under the arachnoid at the base of the brain.

Finally, the case before us resembles other recorded instances of Meningeal sub-arachnoid hæmorrhage, in the comparatively early age at which the hæmorrhage occured; in the habits of the patient; in the absence of premonitory symptoms of a suggestive kind, in the suddenness of the seizures, and in the rapidly fatal issue of the final attack.

Its more striking peculiarities appear to be the recurrence of the attacks of loss of consciousness; the transient duration of each attack; the prompt and complete recovery of the faculties after the first three seizures; the pain experienced in the back and thighs; the extensive disease found in the blood vessels after death, and the large effusion of blood along the entire length of the cord in addition to that within the cranium. It may be that the extravasation of even a little blood about the pons and medulla oblongata sufficed to produce instant (but slight) shock, or as Trousseau calls it "cerebral surprise," during which further hæmorrhage ceased, and from which in consequence of the small amount of extravasation, or its wide diffusion, so that it failed to exert much pressure, recovery was prompt and complete. The second seizure which occurred very shortly after the first, may be referred to fresh bleeding during reaction, and while the patient was exerting himself. The subsequent seizures probably coincided with fresh extravasations. The pain in the back and thighs may be accounted for by the presence of the blood in the spinal membranes where it must have compressed the nerves. The *absence* of paraplegia and anæsthesia has been noticed by other observers in these very rare cases of hæmorrhrge into the spinal meninges.

The existence of well marked atheromatous disease of the blood-vessels is interesting, first because such condition is nearly always present in idiopathic cerebral hæmorrhage; and secondly, because of the early age at which the arterial

degeneration had attained such development. The miliary aneurisms of Messrs. Charcot & Bouchard were not carefully looked for. This is of less conseqence in this instance than might at first sight appear. The authors just named do not refer *Meningeal* hæmorrhage to these miliary aneurisms, but extravasation into the cerebral *substance* only. And some high authorities (Rindfleisch, Niemeyer, and others), deny that they produce copious hæmorrhage, and affirm that they develop merely punctiform extravasation.

Montreal, 2nd April, 1875.

Case of Wasting Palsy, with Remarks by JOHN D. CLINE, B.A., M.D.

(Read before the Medico-Chirurgical Society, Montreal.)

William Brownlow, aged 14, was admitted into the Montreal General Hospital on the 6th of March 1875, under the care of Dr. Roddick, and is at present under the care of Dr. Reddy.

He has three sisters and three brothers alive and in good health,—some younger and some older than himself. His father was a butcher by trade, but has followed farming for several years ; he is a delicate man, having suffered from a severe form of dyspepsia for the last three years. The patient knows little of the family history on the father's side ; has heard of his father having two brothers, who are both dead. His mother had two sisters, who died from fever, scarlatina he thinks. Maternal grandfather still alive. Maternal grandmother died at the age of 80. Father and mother both very temperate. Patient has always been more delicate than the rest of the family, suffering frequently from what he calls "sickness at the stomach." Has always had full power and free use of his limbs till the time of the present attack in August, 1872. Has never been hard worked, doing only the light work about the house. On the 5th of January, 1868, (he is very particular about dates) he received a kick from a horse on the forehead, which in

laid him up for six months. He was stunned by the blow but soon regained his consciousness. While he was laid up from this injury he suffered great pain in the head; some pieces of necrosed bone came away. There is a scar and depression in the bone marking the seat of this injury.

It is situated directly over the frontal sinus. He recovered perfectly from this, and has never suffered any inconvenience from it since.

For the last three years he has had a spot of eruption, vesicular in character, about three to four inches in diameter, over the point of the right shoulder. Never any eruption anywhere else on his body,

On the the 3rd of August, 1872, got up "all right" in the morning. It was a wet, rainy day. The patient went out with his brother, barefooted, to pick raspberries. In the afternoon he had a headache but was not sick. Next day (Sunday) he was sick in bed all day, vomited, and his headache was very bad. On Monday he was better and went to the brook for a pail of water. On the way he felt his legs giving way under him. In about five minutes he got up and walked home. At night in walking across the floor he fell again. Got up and got on a chair by himself but his legs felt very weak. Slept well that night, and in the morning found he could not walk at all. He could stand alone, but whenever he attempted to move he fell. His legs remained weak and got "awful itchy' for a day or two. This itchiness was soon replaced by a severe steady pain all over the limbs from the buttocks to the feet. Never had any pain along the spine on movement or pressure; never had sensations of constriction around the abdomen. The pain was relieved by hot fomentations. It lasted for about six months, with occasional intermissions of an hour or two Never had cramps or twitches in the muscles; never had sensation of numbness nor any peculiar sensation besides the itchiness and pain. During these six months he remained in bed, his legs growing weaker all the time, and he ed them growing smaller. About a month after his

illness began, Dr. Hamilton was sent for, who gave him medicine internally and applied a blister over the sciatic nerve, and gave him a liniment, which he says took away the pains. As soon as he got rid of the pain he stopped doctoring. During all this time his general health was good. He is of opinion that his legs have not grown any weaker or smaller since the first year of his illness. The right limb has been throughout stronger than the left, he says. There is a patch of long hair three to four inches in diameter on the anterior aspect of the right thigh, which he says has grown since his legs began to get weak. No admission of masturbation can be got from him. No history of any exposure to lead poisoning.

He insists that he could run and walk as well as ever he could until after this exposure to cold and wet.

Present Condition.—The upper part of his trunk and upper extremities are well developed, but his legs are little more than bone. He cannot walk at all. His mode of progression is by his hands, his heels being close together and resting against his buttocks and held there by a strap passed around his legs and over his neck. In this way he is very active, and can go up and down stairs with considerable ease, proving the strength of his arms and upper part of his trunk. He can stand for a short time with the aid of a table. The only support that he gets from his limbs, is from the right one. When standing his appearance is peculiar from the great exaggeration of the lumbo-sacral curve of the spine which arises from atrophy and weakness of the erector spinæ muscles, as well as from atrophy of the gluteal muscles. This is also noticeable almost to the same extent when the patient is lying on his back, and the curvature cannot be reduced by pressure even. This is due to the fact that these muscles were weak from the first and that the shoulders were thrown back in order to place the centre of gravity as far back as possible, so that the vertebræ have become permanently moulded in this position. Also

when lying on his back the limbs are rotated inwards which is due to atrophy of the gluteal and other external rotators. and the weight of the foot.

The measurements of his lower limbs are as follows :—

Around left buttock over groin	15½ inches
Around right buttock over groin	17 "
Left thigh 3 inches below trochanter	10½ "
Right " " "	11½ "
Left 7 " "	9 "
Right " " "	9¾ "
Left thigh just above knee	8 "
Right " "	8½ "
Calf of left leg at largest part	7⅛ "
" right " "	6½ "
Right and left feet at instep are equal	7½ "

Thus while the right buttock and right thigh are larger than the left buttock and thigh the left leg is larger than the right; still all the muscles are atrophied. There is not a single muscle of the lower extremities that has escaped. The muscles of the right thigh are in the greatest state of preservation, and retain considerable tonicity, and can be rendered tense at will, especially those on the anterior aspect of the thigh, all those composing the quadriceps extensor. The vastus externus is the largest and hardest of them. All the rest of the muscles of both limbs communicate a dead flabby sensation to the feel. The muscles, flexors and extensors,of the left leg, though much larger than the corresponding ones of the right, are relatively in a much more advanced state of degeneration than those of either thigh. The abdominal muscles are soft and relaxed, more on the left than on the right side and the walls of the abdomen cannot be kept retracted for any length of time without a sense of fatigue in the muscles. When these muscles are contracted the recti are tensest, and the right oblique more so than the left. The spinal muscles do not appear to be wasted much, but when in a state of contraction

they are softer than they should be ; those on the right side more so than the left. As would be inferred from the relative development of the muscles all the movements of the right thigh, flexion, extension, abduction, and adduction, are more easily and powerfully performed than those of the left. These movements of the left are done with a flail-like action. It takes considerable force to antagonise the extension of the right limb. The movements of flexion and extension of the right foot and toes are entirely lost while they are feebly retained in the left leg. If he bend forward when sitting he cannot return to the erect position without his hands on his knees. Thus the degree of voluntary motion is proportioned to the degree of preservation of the muscles. There is almost absolutely no remnant of muscles on the right leg.

Fibrillar tremors are noticed on pressure with the finger in the muscles of both thighs and in those of the abdomen, and frequently in the muscles on the anterior aspect of the right thigh without any irritation, especially when the limb is forcibly extended. These are tremulous wire-like elevations running along under the skin. He never has, and does not now, suffer from cramps or twitches in the muscles. The response of the muscles to the galvanic stimulus is also proportioned to their degree of preservation. I used a powerful induced current of a two-celled battery, which could scarcely be tolerated at all in the healthy muscles. Applied to the anterior of the right thigh it induced a convulsive action of the muscles. The effect was much less on the posterior aspect. On the left thigh and leg it only produced a fibrillar contraction which could be felt but not seen. In the right leg it produced no effect on the muscles, but when over the nerve it would cause the leg to be drawn up. The right gluteal muscles responded more actively than the left, as also the right abdominal more than the left. The left spinal muscles responded more actively than the right. Thus the atrophy is less as we

ascend, though not uniformly on the two sides. Sensation is perfect in the two limbs. There is no morbid sensation as of pain or numbness in the limbs. He says he has occasionally pain in the abdominal muscles, lasting two or three hours at a time. The limbs become very readily cold. His general health is and has been throughout unimpaired. All the organic functions are performed perfectly. Has no difficulty in evacuating his bowels or bladder. I examined his urine and found nothing abnormal. He passed 43 oz., in 24 hours. Sp. Gr. 10.18. Dr. Reddy kindly calculated the quantity of nitrogen in this quantity of urine. It was 368.295 grains.

For the history and some of the notes of this case I am indebted to Dr. Bell, the student who was reporting it, and to Dr. Roddick.

Now, gentlemen, I think there is no doubt this is a case of Cruveilhier's Progressive Muscular Atrophy. We have a muscular atrophy which is progressive, however rapidly, the loss of voluntary motion being proportionate to the degree of atrophy, and the atrophy affecting special muscles or special groups of muscles more than others. But there are some points of peculiar interest in this case. I think to the exposure to cold and wet may be assigned the cause. This is one of the admitted causes. The others are hereditary predisposition, excessive muscular exercise, especially of particular muscles leading to the partial variety, and injuries and diseases of the spine. I am inclined not to connect the disease at all with the injury to the head from the time (four years) that elapsed, from the sudden onset of it after exposure to cold and wet, and from my failing with the greatest care to extract from the patient the history of any weakness in the limbs, or tendency to stumble in walking, previous to this. I have not been able to get any confession of onanism which is sometimes said to be a cause.

The disease usually begins in the upper extremities, the favorite starting point being the thenar region of the hand. But of 105 cases collected by Dr. Roberts, who is the author

of a monograph on the subject, and is also writer of the article on it in Reynolds' System of Medicine, it started in the lower extremities in 18 cases. The pain which our patient had for about six months is not a very usual symptom, though according to Dr. Roberts it is more common when cold and wet is the cause. But the most peculiar feature of the case is the suddenness of the onset of the disease and the rapidity of the atrophy. The patient was exposed to cold and wet on Saturday, and on Monday in walking felt his legs becoming weak, and fell, and from this time within a year his legs became extremely wasted, the wasting being accompanied with severe pains during this the most active period of the disease. The usual course of the disease is very insidious, the wasting being first noticed, and the weakness which existed all the time being discovered probably by accident. In this case the loss of power was present before there was any wasting, before there could have been any wasting. Yet this loss of power was not absolute at any time; it was not paralytic in character. There are cases in which the onset of the disease has been thus sudden, but efforts have always been made to explain this by maintaining that the disease had been slowly progressing, and been noticed by the patient by reason of some sudden event, and thus, to make the history of the case coincide with the usual history of such cases. The best view to take of this case, I think, is that it is one of Progressive Muscular Atrophy, complicated with a lesion of the motor centres of the spinal cord. If in the words of Dr. Roberts: "The nutrition of the muscles is placed under the control of a special set of organic nerves, having upward connections with the sympathetic ganglia, and the cerebro-spinal axis which are by no means identical with the central connexions of the motor nerve-fibres of the same muscles," an opinion which is steadily gaining ground, we may suppose that the same lesion affected the central connexions of both set of nerves at the same time, the motor lesion being manifested first, while the process of atrophy was begun.

As to the prognosis in this case, I think it is very unfavorable. The Progressive Atrophy has not been arrested yet. Dr. Roberts says, that the presence of "Fibrillar tremors is a sign that the disease is advancing, as they are never present in muscles that are wholly destroyed, nor in muscles that have ceased to be the seat of action of the disease." The same author says: that if the disease starts in the legs it will probably become general, and that it is more apt to become general when it arises from cold. But it will probably run a long course. It has already lasted two years and a half, and according to the patient, has not advanced much lately.

Correspondence.

Sanitary Matters in Montreal. By A. B. LAROCQUE, M.D.
Editor of Canada Medical and Surgical Journal.

SIR,—Since a few years a great deal has been said and written on sanitary affairs, and we may say that little has been accomplished comparatively with what could have been done had we the power to enforce the numerous suggestions recommended in the reports of the Health officers.

His worship Mayor Hingston, whose inaugural address on health was undoubtedly read with interest by every citizen having at heart the prosperity of our city, has lately called together the Presidents of the Police and Health committees, the city attorney, the chief of Police and the Health officers. The object was to know what were the duties and power of the Health committee and of the Board of Health, composed of the Health and Police committees

Mr. Roy the city attorney explained that legally the Health committee was the executive power of the Board of Health; its duties consisting in attention to the general sanitary condition of the city. That in urgent cases such

...ica had for its object the promotion of public heal
... compulsory vaccination, domiciliary visits, the d
... of dwellings, and the destruction of all thin
... dangerous, or which might propagate contagic
... meeting of the Board of Health held on the 11
... mayor suggested that a sub-committee compos
... Grenier, McCord, Holland and Mullin and (I
... course) be named in order to organise the diff
... ments of the Board of Health, viz., vital statisti
... houses, yards &c., &c., of alimentary su
... scavenging, drainage and hospital for contagio
... The sub-committee intends to meet once
... the health department and to report at stat
... the Board of Health.
... meeting took place on Wednesday last.
... were present, also the health officers. H
... read a code of sanitary by-laws presented by t
... the Health committee. After having mad
... ...ations in some of the clauses it was resolved th
... ...ing part of the code should be read at the ne
... It was also resolved that the mayor and t
... officers should choose the nomenclature and clas
... diseases to be used in the compilation of vi
... The president of the health committee suggest

ment, we hope to be able to establish a bureau of vaccine, from which vaccine will be procured in sufficient quantity for the wants of Montreal and the Province of Quebec.

Small pox is at present prevalent throughout the Province of Quebec, vaccine is every where required. Up to this day the want of proper organisation has placed the health department in the position of being unable to satisfy the demand for lymph. We would call the attention of the medical profession to the fact that it is impossible to keep a constant supply of fresh lymph, unless a sufficient number of children come to be vaccinated and return on the eighth day in order to verify the character of the vaccination and to collect lymph on ivory points and in tubes. We would therefore request medical men to induce poor parents to bring their children to the health department to be vaccinated. We would also request the medical profession of Montreal to recommend more generally than has been done heretofore revaccination which is as necessary as primary vaccination. The urgent necessity of revaccination has been evident this winter during the violence of the epidemic of small-pox. A great number of adults vaccinated in childhood, took small pox. We know that if they had been revaccinated, they would have either escaped altogether or else the disease would have assumed the varioloid or modified form, as was lately proved in several cases of revaccinations in which there were no constitutional symptoms, and only a few pustules here and there on the face and body.

The sub-committee will soon ask the adoption of most urgent sanitary measures, such as those which would lead to prevent the propagation of epidemic and contagious diseases, especially of typhoid fevers and small pox, also concerning scavenging, drainage, and inspection of alimentary substances.

We shall call on the medical profession to report the cases of small pox and typhoid fevers which might be under their care.

The intention of the Board of Health is to coöperate with the profession in the arduous task of diminishing the causes of epidemic and contagious diseases, which so considerably increase our death rate. We are confident that the medical men of Montreal who have always shown a great deal of interest and devotedness to the sanitary cause will kindly favor the different by-laws about to be adopted by the sub-committee. The results will no doubt tend to elevate the standard of the medical art and promote the welfare of society.

I remain &c.,

A. B. LAROCQUE. M.D.,
Health Officer.

423 St. Catharine street.

Periscopic Department.

SURGERY.

Severe Prolapsus Ani in a Young Adult treated by Cauterisation with Nitric Acid. — Under the care of Mr. HUTCHINSON.

Prolapsus ani, although so common in children, and not very unfrequent after the middle periods of life, is rare in young adults, and when met with in them is almost always with a history of its having begun in childhood. It is thus but seldom that the surgeon has to treat cases resembling the following one, in which the protruded portion was very large, and had been produced for the first time in a healthy young adult.

Jane D., aged eighteen, a servant girl, was admitted with prolapsus recti on November 10. She was pale and rather stout, but in fair health. The prolapse begun eight weeks before she came in, the bowel coming down when she went to stool. The day before this occurrence she had lifted a

nine-gallon cask full of beer from the floor on to the chair —an unusual effort for her. The gut remained prolapsed for three days, after which it was returned by a medical man. It afterwards continued to come down every time her bowels were moved. Sometimes she was able to return it, and sometimes not. She never had prolapse in childhood, nor did any of her brothers and sisters suffer from it.

From November to January she was kept in bed, took iron internally, and used astringent lotions to the rectum. For a few days in January she wore a pessary, but it did not prevent the prolapse from returning. Towards the end of January, the condition remaining the same—at least an inch and a half of gut being prolapsed every time she went to the closet,—Mr. Hutchinson cauterised the exposed mucous membrane with nitric acid, applying it in broad streaks parallel with the length of the gut. The bowel was returned. Two days afterward she complained of severe shooting pain up the back.

On the third and part of the fourth days her temperature was constantly from 104° to 105°, but after the fourth day her bad symptoms subsided. Her bowels were kept inactive for ten days by opium. At the end of that time she had a motion attended by some pain and soreness, but not followed by any prolapse. About ten days later (three weeks after the operation,) she was discharged. The bowels had been opened regularly every day, and no sign of a return of the prolapse had occurred. Digital examination revealed the presence of distinct ridges on the parts cauterized. There was no pain in the lower part of the bowel at any time after the operation, nor any discharge from the cauterized surfaces.

The occcurrence *de novo* of such extensive prolapsus of the rectum at the patient's period of life is very unusual, and for that reason is worth putting on record, no less than on account of the complete cure which was effected by destroying longitudinal bands of mucous membrane with nitric acid. Although, however, she recovered quickly from the

operation, it is to be observed that she had symptoms for a few days very suspicious of commencing peritonitis—a fact which shows the necessity for great caution in the performance of operations upon the unaltered mucous membrane of the rectum.—*Medical Times and Gazette.*

Nussbaum on the Treatment of Ununited Fracture by Transplantation of Bone.

In the *Aerztlickes Inteligenz-Blatt*, Feb. 23, 1875, Professor Nussbaum, of Munich, publishes a very interesting and practical clinical leeture on the treatment of ununited fracture, its pathology and methods of treatment, and particularly on the treatment by the transplantation of bone, in complicated gunshot fractures, resulting in an open false joint, with great loss of bone-substance and necrosis, where the cartilage encrusted extremities are merely bound together by a long thin tendinous band. As regards the limbs, he confesses that he has had only hitherto one instance in which he has employed the method, but with such a singular amount of success as to afford great encouragement to further attempts in the same direction.

A Saxon lieutenant, twenty-four years old, on July 22, 1870, in the fight at Mars-la-Tour, received a very severe gunshot wound in the right forearm. The ulna was smashed in the middle, the splinters of bone had necrosed, the periosteum had been destroyed, and subsequent cicatrisation had resulted in a false joint, having about two inches and a half of open wound. The two approximating ends of the fractured bone were united by means of a thin fibrous cord Although the radius was intact, the functions of the bone were so limited, and its abnormal motion so exaggerated, that the patient was invalided. On July 14, 1874, the patient being chloroformed, the false joint was exposed. Both ends of the fractured bone were thin, covered with a pointed cartilaginous process, and slightly united by means of a weak, tendinous false ligament. Thc pointed car-

tilaginous extremities and the thin false ligament, being rather in the way than useful, were cut off with strong scissors. Next, the upper surface of the proximal end of the ulna was half sawn through, about two inches and a half from its extremity, and with a sharp cutting chisel this upper piece of the ulna, with its periosteum, was split off, parallel with its upper surface, yet so that the periosteum of the pointed extremity and of the under surface were not both cut through; thus the detached portion of bone had still a slight nutrient bridge derived from the periosteal covering. Finally, the portion of bone thus detached was so deposited in the gap, that its internal upper surface now became external, the under internal, and the outer surface became the upper one. Had the transplanted portion been turned downwards so that the now upper surface had become the under, the periosteal bridge remaining on the under surface must have been much more dragged upon and torn, and it would have been probable that the blood-communication, through the connecting periosteal slip, might have been entirely cut off.

In the gap in which the transplantation portion of bone had been placed, a tolerably deep incision had been previously made into the indurated soft parts, to promote some inflammatory action in the neighbourhood, and to favour the adhesion of the introduced portion of bone. The wound was dressed with carbolised dressing and closed with seven sutures, and subsequently enclosed in a gypsum bandage furnished with a trap-door.

The operation was so successful that in December, 1874, the patient was gazetted to a grenadier regiment.

Professor Nussbaum makes the following remarks on the two great mishaps after fracture, viz., healing bent, or with considerable shortening. Supposing a case is met with within six months, the badly united fracture should be simply broken up again under chloroform, as, before the definitive callus is formed, a refracture is neither difficult nor dangerous.

A linen cloth should be laid on the edge of a table, and the fracture to be rebroken brought quite to the margin. A strong pressure downwards readily breaks the provisional callus, and it is best broken in the direction corresponding with the faulty curve, and should be commenced by extension (for which purpose an extension bandage is most serviceable). Considerable risk is run in refracture, during this stretching, of rupturing some artery adherent to the callus, since the process is never effected slowly but always with a powerful jerk. But if the callus be broken up by bending inwards, the necessary amount of stretching can be conducted slowly and surely. A good position having been obtained, the new fracture can be treated as a simple one.

If six or seven months have passed and the definitive callus have become of ivory hardness and stronger than the sound bone, should any attempt be made at refracture, it would remain intact, and the resulting fracture of the normal bone would render the condition worse than before. Under these circumstances only operation is of use.

Langenbeck employs two processes in the subsequent operative procedure on the bones. After having made a small incision in the skin, he first bores through the callus at the angle ; he then enters a small fine key-hole saw into the hole thus bored, and cuts through the bent bones right and left, to such an extent that merely a thin bridge of the cortex of these bones remains intact. The wound is then carefully cleansed. After granulation has taken place and the integument has healed over, he undertakes as the second part of the operation, the fracture of the remaining thin cortex, and treats it, by means of a gypsum bandage, as a simple fracture of the bone. The idea is admirable. The object of this partial sawing is, that the mass of definitive callus which has become as hard as ivory and could itself not be broken up, is readily ruptured when it has been about three parts sawn through, and the fracture can be effected at

place of election.' It is a matter of fact that the wound [illegible]ected by boring and sawing portions of the operation pro[illegible]uce such inflammatory reaction that the remaining lamellæ [illegible]hereby become soft and elastic, and so the rest of the oper[illegible]ation is rather a bending than a fracture. The most important advantage, however, of Langenbeck's operation, consists in this, that when there is a wouud there is no fracture; and at the time when one has to be made and treated, there is no open wound.

The American surgeons reduce the bones to be broken later on, simply by drilling five or six holes through them. Szymanowsky saws a wedge-shaped piece out, three parts of the thickness of which he removes, and after the healing of the soft parts, breaks through the remaining portion. Professor Nussbaum's plan is to avoid the sawdust and *debris* arising from the drilling and sawing operations, by using a fine sharp cabinet-makers' chisel. He chisels through about three-quarters of the thickness of the bone, and then withdraws the chisel, allows the wound to heal, and afterwards breaks through the remaining portion.

[The entire paper is one of great clinical interest, not only as regards Professor Nussbaum's own experience, but of that of others; the reader is therefore referred to the original for greater detail.—*Rep.*] *London Medical Record.*

Cases of Fracture of the Skull.

THE MIDDLESEX HOSPITAL.

Case 3.—*Fracture of Base of Skull, with escape of Cerebro-Spinal Fluid—Recovery.* Under the care of Mr. Morris.

(From Notes by Mr. Lee Macintire, the Dresser.)

Alfred W., aged fifty-two, a grocer, was admitted into Broderip ward on September, 15, 1874, in a semi-stupid

state. He had been drinking, and was knocked down by another man, who struck him a blow on the mouth. In falling backwards he hit his head against a lamp-post.

On admission there was a small scalp-wound above the right ear; the lower lip was contused and cut on the mucous surface; and there was a continuous oozing of blood from the left ear. The blood is described as thin in character.

September 16.—The stupidity about his manner which was noticed when first admitted, and which probably was entirely due to the drink which he had just previously taken, soon passed off. He seems now quite well in every respect, excepting, however, that the oozing of thin blood from the left ear continues. Temperature 99°; pulse 96. Bowels have been freely open. Spoon diet; ice-bag to head.

19th—Suffers occasional headache. No blood escapes from the left ear now, but there is a slight occasional discharge of a watery fluid from the same ear.

20th.—A plugget of cotton-wool which was yesterday inserted into left earhole was found, on removal this morning, to be saturated with what looked like blood-stained serum. With the exception of a slight headache occasionally he feels quite well, and thinks it strange and unreasonable that objection is made to his going out, and even to his getting up. He cannot hear the ticking of a watch held close to his left ear, but recognises the kind of noise when the watch is applied near to the right ear.

21st.—Slight headache; the cotton-wool in left ear is stained with discharge.

29th.—Still discharge from left ear; has occasional headache, and some singing noise in the left ear; keeps his bed, and is still on spoon diet and bread and butter.

October 3.—Has been getting up for a short time the last three days; he has no giddincss or headache when up; there is still a little discharge from the ear; was allowed meat diet for the first time to-day.

8th.—Discharged convalescent, with instructions to take

great care, and to keep very quiet for some time to come.

Remarks.—The continnous escape, in the first place, of "*thin*" blood, then of what looked like blood-stained serum, and subsequently of a watery fluid, together with the loss of power of hearing on the same side, all point to the existence of a fracture through the petrous bone, with laceration of the cerebral membranes. On the other hand, the absence of any symptom of concussion or cerebral irritation proves that the brain could not have been injured by the accident to any appreciable extent.

The next case is one of much interest, and though by no means very uncommon in its nature or its termination, is yet pregnant with instruction when looked at from a clinical point of view. First, it teaches us the same lesson as the three preceding cases—viz., that fracture of the base may occur without injury to the brain, or any immediate consequent brain symptoms; but it teaches the lesson much more forcibly, for the patients in two of those instances were rendered insensible for a time, whereas in this case the man after a few moments protested he felt quite well, and proceeded on his journey as though nothing had happened. Secondly, it shows the necessity of immediate rest after an injury to the head, even though no cerebral disturbance is produced. After fracture of the base of the skull without immediate symptoms, death may, and does often follow in one of two ways: either within thirty-six or forty-eight hours from hæmorrhage slowly going on, perhaps from a branch of the middle meningeal artery, dissecting off the dura mater from the bones and producing compression of the brain, as in this case; or it may be after several days, or even after three or four weeks, from inflammation and suppuration of the membranes of the brain, Death in the manner first named might possibly often be prevented by immediate and prolonged rest and the early application of ice; whilst death from meningitis would no doubt much oftener than is now the case follow fractures of the skull, were not the rules of absolute rest, low diet, and cold applications to the head as commonly insisted on as they are.

Case 4.—Fracture of Skull—Extensive Hæmorrhage between Dura Mater and Cranium—Death in Twelve Hours.

For notes of the following case, which occurred in country practice, we are indebted to Mr. Lucas, the able Resident Medical Officer at the Middlesex Hospital, by whom the post-mortem examination was made.

W. C., aged thirty-one years, a well-built labourer, while leading a young horse along the roadside, attempted to get upon his back, and in doing so fell backwards under the horse, the animal stamping upon the left side of his chest and head. He was stunned, but recovered his consciousness in a few moments; and protesting he felt quite well, proceeded on his journey. No unsteadiness of gait was noticed by the bystanders; but he was observed to retrace his steps for some hundred yards, and then recollecting his mistake, to turn round and continue his journey in the right direction for a distance of five miles. He complained of headache during his walk, but of no other inconvenience. After putting the horse up he went to bed, and soon fell into a sound sleep. His breathing at first was noticed to be rather heavy, but after two or three hours it became stertorous, and his friends, becoming alarmed, sent for medical aid; but the patient died before any could be procured. A period of twelve hours had supervened between the time of the accident and his death.

At the post-mortem examination a large bruise was seen on the left side of the chest, but no other external mark of injury. On reflecting the scalp some extravasated blood was observed beneath the skin immediately above the left ear. On opening the head, the dura mater lining the middle fossa of the skull was seen stripped off from the bone, and a clot of blood equal to an orange occupied a space between it and the skull, compressing the brain in this region; there was no laceration of brain substance. On removing the clot, a fracture presented itself extending through the squamous portion of the temporal bone across the middle fossa of the skull to the body of the sphenoid; but it did not appear to run beyond this point. The lungs were engorged with blood, and the kidneys were congested, otherwise the organs were healthy.—*Medical Times and Gazette.*

Hæmorrhage.

In his second Lettsomian Lecture Mr. Maunder stated his conclusions from his cases of hæmorrhage as follows :—

1. That no operation is to be performed when bleeding, has ceased, unless a repetition of it would directly endanger life.

2. That the bleeding vessel is to be sought at the seat of injury, and to be secured if divided, at both ends, either by a ligature or by torsion; if only wounded, by a ligature above and below the wound; or after section, by torsion.

3. That the injured vessel is only to be tied on the cardiac side of, and at a distance from, a wound in it, when the attempt to secure it at the wound has either been made and failed, or when such an attempt would be either anatomically injurious or pathologically useless.

4. That it is desirable to ligature the brachial artery, rather than both radial and ulnar, for secondary hæmorhage from the hand.

5. That ligature of the brachial, while it stops bleeding, also arrests destructive inflammatory changes caused by useless local efforts to check hæmorrhage.

6. That blood flowing from the distal side of a wound in an artery, or ligature upon it, will in the lower extremity be often, in the upper extremity occasionally, venous in colour.

7. That in malignant disease, when the growth cannot be removed and it is impossible to check bleeding by milder measures, the feeding artery may be ligatured in its continuity.

8. Where a part is more or less disorganised, and hæmorrhage renders repair very doubtful, amputation should be performed to arrest bleeding and remove a hurtful member.

9. Indirect compression will occasionally arrest severe bleeding.

10. That both the axillary and the femoral arteries may be wounded, and a pulse be felt at the extremity of the limb.

11. That a wound in an artery may be recognised by the warm blood impinging on the inserted finger.

12. That a direct compression upon the bleeding point will often succeed *after* the main artery has been tied, though it failed *before*; and this fact is a justification for tying a main vessel.—*The Doctor.*

MEDICINE.

Dr. Richardson, F.R.S., on Action of the Septinous Poison on the Production of Fever.

In a lecture delivered by Dr. Richardson before the Society of Medical Officers of Health, at their last meeting, a new theory was offered on the action of the poisons of the contagious diseases in the production of symptoms which mark those diseases, and especially the symptom of fever. In a lecture delivered before the same Society, in the year 1865, the author detailed his original experiments on the poisonous action of an organic substance he had obtained from the sero-sanguineous fluid that had been removed by Mr. Spencer Wells from the peritoneal cavity of a woman suffering from pyæmia after the operation of ovariotomy. To this organic poisonous substance he (Dr. Richardson) at that time gave the name of septine, and he showed not only that it would communicate fatal disease to an inferior animal, but that the same disease could be communicated from the secretions of the primarily infected animal to other healthy animals in direct series. He also showed in the same research that the organic poison could be made to combine with acids so as to form salts which retained the poisonous qualities of the original substance. That a similar poisonous substance is present in decomposing blood, and that the poison can be transmitted in a series of animals, have since been confirmed by the independent researches of many physiologists, and the fact may be considered as fully established, although great difference of opinion still remains as to the nature of the organic product, some assigning to it purely physical, others vital properties.

We may be able by and by to discuss these different views at length. At present we are intent only to indicate the new theory which the author, whose communication we now notice, offers as to the mode in which the organic poisons produce their peculiar effects. On this important

inquiry he has been occupied ever since his researches in 1865, and the result is to the effect, that the poisons exert their deleterious action through the property they possess of setting at liberty the oxygen of the blood in undue quantities in the extreme circulation. By way of experimental demonstration, Dr. Richardson took specimens of solutions of peroxide of hydrogen, and inoculated them with points of different organic poisonous animal substances—viz., decomposing blood, pyæmic poison, pus, fibrine, and vaccine lymph. In the presence of all these bodies, oxygen began to be immediately liberated from the solution. Other organic substances—mucus, for instance—would not liberate oxygen, a fact which could be applied (as was shown by an experiment) for diagnosing mucus from purulent matter. Proceeding with his demonstrations, Dr. Richardson charged blood with oxygen from the peroxide solution; then, by inoculating this blood and setting oxygen at liberty, he showed the temperature of the blood rose 4° Fahr. In his further observations, he explained that these organic disturbing substances are themselves decomposed in the process of the change they excite, and that they all seem to be derived originally either from fibrine or cellulartissue.

The conclusion arrived at, and which was advanced admittedly as a theory in its present state, is that the fever-producing poisons act in the way described by setting oxygen free in the blood in undue proportion. The theory, it was urged, explains the phenomenon of remittency. The accession of fever is due to the presence of the poison, but as the poison becomes destroyed the disturbance ceases until a new charge is locally produced and carried into the blood. The theory also explains the phenomena of those malignant, contagious diseases in which death occurs very rapidly, with symptoms of asphyxia and convulsion. Here, it is assumed, the liberation of oxygen is sudden and complete, and the blood so surcharged with poisonous matter that it cannot duly absorb and fix oxygen in the pulmonary circuit. Thus an asphyxia commences from the blood itself

Some therapeutical considerations brought the lecture to a close. It was shown that certain medicinal substances, among which quinine was specially named, counteract the different poisons in their power of liberating oxygen.

Our readers will gather from this summary that a new field of inquiry on the subject of the poisons of the contagious diseases is opened by these researches. That the inferences drawn support the physical side of the question may naturally be expected, coming as they do from an author who for so many years has been one of the most prominent exponents of the physical theory of contagion *The Lancet.*

Lewin on Infectio Sine Coitu.

Dr. Lewin brought before the Medical Society of Berlin (Pick and Auspitz's *Vierteljahrschrift für Dermatologie und Syphilis*, 1874)some instances of syphilis communicated through kissing, suckling, and inheritance, which illustrate several important points in the natural history of the disease. In the first group of cases were two women and their children. One woman had an indurated scar on the lower lip, and a maculo-papular eruption of the body. She had noticed in the seventh month of her pregnancy a pustule on her lower lip ; having also for some time previous remarked that her husband had sore lips. This pustule left a hard scar. The child, born prematurely, had several spots and small ulcers on the skin, and gummous orchitis. The second woman, having given birth to three healthy children, was infected by suckling a syphilitic child. She had a hard sore on the right nipple and constitutional syphilis. Lewin holds that these cases establish, among other better known facts in the natural history of syphilis which he enumerates certain points less generally admitted, viz., that a woman even when infected in her latter months of pregnancy, and suffering only from early secondaries, may give birth to a child who presently shall have a tertiary form of the

disease; and again, that tertiaries do not need mercury for their production. The next proposition he laid down was, that the symptoms of inherited disease which manifested themselves at birth may disappear without any treatment. The disorder may then become latent, and break out again several years later. [Though this is doubtless a correct statement, Lewin does not adduce any evidence in this paper to confirm it.]

In the following group, a woman with a child at her breast, by giving suck to a syphilitic chid, was inoculated herself, and subsequently infected her own child and her husband. The husband died not very long afterwards from cerebral affections, which the *post mortem* notes proved to be syphilitic. The woman was married to a second husband, who never had syphilis, notwithstanding that his wife had frequently syphilitic affections of the pharynx and larynx. Two children resulted from the second marriage, making her offspring three. The child of the first marriage, who had acquired syphilis at her mother's breast, was treated with mercury, and the symptoms disappeared. Nevertheless she must have had further troubles, for when examined there were found scars and adhesions of the soft palate and a notch in the epiglottis. She, moreover, has suffered from her sixteenth year from lupus of the thigh, and periostitis of the os frontis and tibia, continually relapsing. At seventeen she married a man not previously syphilitic, who died a year and a half afterwards from tubercular meningitis. A premature child was born, who lived fourteen days. Two years later she was married again, and has now a child seventeen months old, who has scrofulous lichen and a gummy ulcer of the thigh. To continue the history of the children of the second marriage of the first woman; one died of syphilis at five and a half months; the other, now a girl aged thirteen, was healthy till her sixth year, when syphilitic eruptions appeared which continued for five years. This family is a striking example of the long duration of the syphilitic poison, and how deeply it penetrates into the

organism. Further, one of these cases shows that a child may inherit syphilis which will not become apparent for several years subsequently to birth. Probably many cases of ulcerating skin-disease, especially lupus, are really manifestations of syphilis. Lastly that hereditary syphilis can be derived solely from the mother is also clearly shown by these histories.—*London Medical Record.*

BERKELEY HILL.

A Danger of Ether at Night.

Dr. Wm. Hunt publishes in the *Philadelphia Medical Times* a very important caution as to the use of this agent at night—viz., that the lights should always be *above* the operator and etheriser, and the neighbourhood of a low grate or open stove should be carefully avoided. The vapour of ether is very heavy, and falls rapidly, as anyone can test by pouring a little of the liquid into a saucer and watching it roll and fall over the slides. One of the most exciting and seriously threatening scenes that Dr. H. has ever been engaged in happened, he says in this way:—"A man required amputation of the arm (which was crushed by an engine) high up. There was, fortunately, just room for the tourniquet. The residents of the hospital, together with Drs. Agnew and Herbert Norris, were assisting. The latter administered the ether from a large sponge, and placed the bottle on a chair at his side. I had just removed the dangling fragments of the limb, when an assistant brought a candle close to the stump, and almost directly under the sponge. Instantly we were in a blaze. Dr. Norris involuntarily started back, and, in doing so, knocked over the chair with the large ether bottle, which broke! Its contents were quickly spread, and the whole ring of the amphitheatre was on fire. A nurse lifted the patient from the table and placed him on the floor. Fortunately, the tourniquet held. Others sprang into the side wards and seized blankets, coats, and everything at hand, and we soon stamped the fire

out, but were all more or less singed. The walls of the amphitheatre bore evidence for a long time, in the scorched wood and blistered paint of the danger. The exposed parts of the patient were superficially burned, but he never knew what had happened. He was placed on the the table, and the operation was finished. The thorough anæsthesia here was fortunate for all. Had the fire taken place earlier, terror and excitement from ether combined would have made the man uncontrollable, and a fearful panic might have occurred in the hospital. As it was, no alarm was spread beyond the room."

Night operations with ether should, therefore, only be those of absolute necessity, and with the cautions enjoined there need be no danger. Chloroform, not being inflammable, has a great advantage over ether in this respect; but Dr. H. is afraid of it.—*The Doctor.*

Crayons of Iodoform.

M. Gallard prescribes crayons of iodoform, which he allows to remain in the cavity of the neck of the uterus, retained in position by means of a tampon of cotton. These crayons are used with advantage in cases of superficial ulceration of the neçk which has invaded the cavity. The formula is—

R Iodoform, in very fine powder, 3iiss.;
Gum arabic, finely powdered, gr. viiss.

Sufficient mucilage to make into a pilular consistence. Divide into ten cylinders each about one inch long; dry in the air for twenty-four hours. Each crayon contains a little less than a grain of iodoform. These cylinders are hard and resistant; they may be divided into morsels without breaking.

They become disintegrated in the open air, and much more rapidly in the uterine cavity. In order to preserve these crayons, they should be sealed in a dark and air-tight bottle.

We should think this mode of employing iodoform would be useful in other localities.—*The Doctor.*

Transport and Inoculation of Virus by Flies.

An interesting paper on this subject from the pen of a French veterinary surgeon, M. Mégnin, appears in the second number of Robin's *Journal de l'Anatomie.* M. Mégnin observes that the idea that the spread of charbon or the "pustule maligne" amongst cattle is due to the introduction of the poison by the prick or bite of flies is widely spread, both amongst the populace and men of science: some of the latter indeed, like M. Davaine, going so far as to maintain that the inoculation is always effected by this means, notwithstanding the fact that charbon has been known to be propagated in severe winters, when not a single fly could be detected in sheds or stables.

So recently, however, as October, 1869, M. Raimbert reported to the French Academy of Sciences some precise experiments he had made, from which he concluded that the flies effecting the transport of the poison were not such as possessed pricking instruments (*mouches piquantes*), but those with soft probosces; that such flies having fed on decomposed or diseased substance, carried the poison by means of their feet, wings or probosces to healthy animals, and that the poison possessed the power of penetrating the skin. In another memoir, presented by M. Davaine in 1870 who had worked at the subject independently, the same conclusion was arrived at in regard to the fact that flies with soft probosces, like the common blue bottle, were capable of communicating the poison; but this observer was of opinion that some lesion of the skin must exist, and hence imagined that in the majority of cases one or other of the biting flies belonging to the Tabanidæ or Stomoxidæ was the real culprit. M. Mégnin calls attention to a remarkable report made by M. Tisserant, of Lyns, on a formidable epizootic affection that ravaged the plain of Candrieux in the Department of the Rhone, and which he found to be due to the simulium maculatum belonging to the Tipulidæ a family of Diptera. The bites of this insect produced sharp

pain and swelling of the part, followed by colic, dyspnœa, tumultuous action of the heart, and death in from four to twelve hours. M. Mégnin had the opportunity of watching the effects of multitudes of these flies in the garrison of St. Michel, in 1869; but, to his surprise, though the animals were covered with them, and severely bitten, no serious effects were observed. He consequently considers himself justified in drawing the conclusion that two conditions are requisite for the transportation of poison by flies—first, that there is an animal already affected with charbon; and then, that certain flies, amongst which the Simulium, Stomoxis, and Tabanus deserve special mention, feed on them, and by their bites transmit the poison to healthy animals.—*The Lancet.*

Case of Obscure Nerve Disorder. By C. HANDFIELD JONES, M.B. Cantab., F.R.S., Physician to St. Mary's Hospital.

J. B., aged twenty, female, single, admitted September 12, 1874. Short, of broad build, not anæmic; sent up from the country. Catamenia regular; pulse feeble, languid; skin cool; appetite not good. Has been unable to speak above a whisper for more than seven months, and has had sores on her left leg four months. At inner side of leg, a little above the ankle, there is a small separate sore, besides a group originally consisting, as it seems, of three, but two have coalesced. They are enclosed by a thickened area of dull red skin; they look cachetic, and not in process of repair; are rather deep, and produce a watery secretion. She says that her leg was all in a blister at first, from her knee to her foot; the sores came after. No mechanical injury to leg. The epiglottis appears normal, but the lining membrane of the upper opening of the larynx is red and somewhat swollen. The aspect of the ulcers was suggestive to me of a specific cause—viz., syphilis; and in this view two other good observers coincided. No other indication

of syphilis was detected, unless the laryngeal hyperæmia should be considered as such. Under tonic remedies, including small doses of opium, which were administered for the first nine days, no improvement took place ; on the 21st the ulcers were deeper and more sloughy. Pot. iod. was then given, at first in gr. v. doses, increased soon to gr. x. By October 5 some, but not much, improvement had taken place. She was now ordered Plummer's pill, gr. v. ter die, and on the 12th ung. rubrum mitius as a dressing to the sores. The report on the 19th is that the ulcers are healing well; on November 2 they were just well. The pills had been taken up to October 26. From October 12 to 26 she took ferri et quin. citrat gr. xx. ter die, and for five days previous strychniæ gr. 1-20 ter die. All this time the voice continued soundless or whispering; once only, when the sister pricked her accidentally, she spoke out loud. From October 26 to November 16 I tried assafœtidæ gr. x. in pil. ij. 2dis horis for six days ; then ferri sulphas gr. x.—xx. ter die for seven days ; then atropia gr. 1-100, acid nitrici *m*j., aq. ℥ss. ter die for the rest of the time, with a nightly aperient of podophyllin gr. j., aloes gr. ij., ext. hyoscy. gr. j. ft. pil. The ulcers were now well, but the aphonia remained provokingly persistent, though in addition to the above means faradisation had been pretty thoroughly employed externally, and also, though less effectually, internally with Dr Mackenzie's electrode. I do not think the instrument was brought fairly in contact with the vocal cords, but probably with the transverse arytenoid and crico-arytenoid post. muscles. I now returned to the strychnia in the same dose as before, with *m*ij. acid. nit. In five days her voice was so much improved that it was quite audible ten yards off, and it continued as good, or even improved, until her discharge on December 1. The ulcers remained well. Her voice remained quite good until February 27, when she lost it again. I saw her on March 1, looking rosy and well, but aphonic. Strychnia was ordered again.

Remarks.—Three features of this case deserve some comment—(1) the ulcers, (2) the aphonia, (3) the general condition. That the ulcers were syphilitic is rendered very probable by the circumstance that they healed under the employment of mercurials locally and internally, but proved refractory to other medication. They were of tertiary character, and it is noteworthy that no other indications of syphilis seem to have existed, and that she had not the aspect of syphilitic cachexia. I do not think it was impossible that the syphilis was hereditary, having regard to the patient's bearing and character, and her good behaviour while in the hospital; but it is more probable that it was acquired in the usual way, as there had been thick yellow discharge on two or three occasions previously. The genitals examined by the ward sister presentcd no obvious signs of former lesion. The aphonia was, I believe, such as is usually termed hysterical, and depended essentially on a functional paralysis of the nerves and muscles concerned in phonation. Had it been the result of chronic syphilitic laryngitis there would have been more evident lesion in the larynx, and some decided improvement would have been effected by the mercurials. Though no apparent improvement ensued from the first administration of strychnia or from other tonics and electricity, I do not think they were useless. They contributed to amend the nutrition of the nerve and muscles, and so prepared the way for recovery. We are often too apt to attribute a result to the last agent employed, without taking into account those which have preceded it. No doubt some will regard the recovery as spontaneous, but as far as I could discover, no other agencies than medicinal were at work; and hysterical aphonia is apt to be very persistent, if some measures are not employed to break the spell. Besides, strychnia is quite a rational remedy for states of functional paralysis. That the patient's *morale* was good, and that defective volition had no more to do with the aphonia than with the ulcers, I fully believe. The general condition was one of evident depression; a

feeble miserable pulse, with a cold, dull red skin, told of a languid circulation, which imperfectly ministered to the needs of the nervous system especially, and rendered it prone to lapse into functional paresis. Like enough, also, her circumstances in a poor country village were not of the most cheerful or invigorating kind. Add to this the existence of syphilitic taint, however contracted, as a further impairment of vitality, and we have probably enough to account for aphonia, or any other nerve disorder. That in this condition, and with tertiary ulcers, mercury should prove successful, while pot. iod. failed, is an exception to the accepted rule, but not, I think, a very rare one.—*Medical Times and Gazette.*

Action of Morphia Injected Subcutaneously.

One thousand experiments were made upon himself by M. Chouppe. He found that morphine injected in a painful spot developes its anæsthetic action in two to two and a half minutes earlier than when injected at a distance. Pain ceased sooner after direct than after general application. A direct proof of the local action of the drug was derived from the employment of concentrated solutions. While an injection of distilled water and a weak solution of morphia (1-150) caused sharp pains at the point of insertion, strong solutions (1-50 or 1-130) cause no perceptible pains. Therefore it is better to inject at the seat of pain and to use concentrated solutions- We can corroborate M. Chouppe on this point.—*The Doctor.*

Retroversion.

Dr. Aveling records in the *Obstetrical Journal* the following anecdote: The postural treatment of retroversion consists in lying or reclining upon the sides, or, still better, upon the face. Prostration also is an admirable attitude. A remarkable anecdote in support of this is told of a lady suffering from retroversion, who made her complaint the subject of prayer, and was surprised to find it answered only whilst she was upon her knees. All pain ceased during the devotional act—that is, when she unconsciously adopted the proper postural treatment.—*The Doctor.*

MIDWIFERY.

Case of Double Monstrosity: Maternal Impression. By C. ROBERT THOMPSON, M.R.C.S., Eng.

On November 18th, 1874, I was called to assist Dr. Bourns of Oxted in a case of difficult labour. I found that the patient, who had borne several children without misadventure, had had labour-pains, more or less for two days; that six hours before my visit, the head had been delivered by forceps, having been within reach, and making no progress for some hours previously; and that all the effort and power that had been applied had been insufficient to deliver the body. The woman was tired and full of apprehension, but her condition otherwise was not unfavorable. On placing my hand on the abdomen, I was led from the size of the womb, to pronounce at once that there were twins A large head and shoulders protruded from the vagina, much decomposed, livid, and with cuticle peeling off at a touch. On carrying my left hand along the child's back in the hollow of the sacrum, I felt a small foot and leg packed down between the pelvic brim and the child's pelvis; and my impression was, that the case was one of locked twin, the obstruction to delivery arising from the lower extremity of the second child having descended below the pelvis of the first. I tried to push up this leg, but unsuccessfully. Taking a firm hold of the shoulders, and using all the force of which I was capable, I could not move the child in the slightest degree. I now extended the arms above the head, wrapped them in a towel, to give a firm hold, and, whilst using powerful traction, made an effort to rotate the trunk. This was successful in moving the body, and by continuing the force, the lower part of the body was brought down. The leg which I had felt proved to be a supernumerary limb attached to the scrotum of the child; and, by continuing my manipulations, I was soon able to bring down the breech and two proper legs of the child. But, now it was evident that a second body sprang from the abdomen of the first;

and by a little further forcible traction, the delivery was completed. The child had one pelvis, with two well formed lower extremities and a third smaller one attached to the sacrum, forming a tripod. Male genital organs and rectum were apparently perfect; there were a single cord and umbilicus. From the level of the umbilicus there were two distinct trunks, each with perfectly formed upper extremities and heads, well nourished and of full size. Plate 83 in Dr. Ramsbotham's *Obstetric Medicine* gives a fair idea of the monster, if a third leg be added. It was remarkable that the body of the second part was pink, and looked as though it were viable, whilst that first extruded was livid and decomposed. The cord did not pulsate; the placenta was removed without difficulty, and the uterus contracted well. When the delivery was accomplished, during which nothing had been said to give the woman a hint of what she had brought forth, I told her that she would do well, but had got a dead child, adding that it was deformed. She replied: "I thought it would not be all right; for I was frightened, at Limpsfield fair, by two men outside a show, who kept hugging each other closely and posturing. I was frightened by them, but could not keep my eyes off them." This fair happened when she was about three months pregnant. Any one who has Ramsbotham's *Midwifery* will see at once that the figure in plate 83 resembles exactly two men hugging in a wrestling match. The mysterious subject of maternal impression has been so well handled in two good papers in the Journal of February 6th, that I will add no more.—*British Medical Journal.*

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CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1875.

THE MONTREAL GENERAL HOSPITAL.

Last year the Governing Board of the Montreal General Hospital in appointing three Physicians to fill repectively the offices of House Surgeon, Assistant House Surgeon, and Apothecary, determined that those positions should be held for one year only, but that promotion should be the rule, that is to say: a man entering as Apothecary should at the end of the first year receive the appointment of Assistant, and at the end of the second year that of House Surgeon. This appears to be a very excellent arrangement as hitherto the office of House Surgeon has been retained at the convenience of the occupant, which was to a certain extent unfair, if the Montreal General Hospital was to be viewed in the light of an educational institution.

The present arrangement is highly advantageous, as each year there will go forth, to enter on the earnest and responsible duties of a physician and surgeon, one man at least who has had practical experience in the compounding and dispensing of drugs, and also in the actual charge of the sick during the absence of the attending medical officer. We sincerely trust that this arrangement will be carried out in good faith by the Committee, as any further change would be unfair to the gentleman who this year was obliged, in consequence of the above named arrangement, to resign his official position. That he performed the duties well and satisfactorily is proved when we state that on the eve of his retirement, his fellow officers, the Steward, Matron, Nurses and Orderlies of the house assembled and presented him with an address accompanied by a massive gold chain, to which was attached a gold coin, with the following inscription engraved thereon: "Presented as a token of esteem

to Clarence J. H. Chipman, M.D., by the officers and employees of the Montreal General Hospital on the occasion of his retirement as House Surgeon, April 1875."

We congratulate Dr. Chipman on this evidence of the esteem in which he was held by those under him, and as one of the attending Medical staff to the hospital, we can only add that we fully endorse the good opinion thus expressed, and hope that Dr. Chipman's future career may be full of brilliancy and usefulness.

THE VIVISECTION CONTROVERSY.

A storm has been raging during the past few months in scientific and philanthropic circles on the question of the vivisectionists. Much unnecessary abuse has been indulged on the side of the members of various societies for the prevention of cruelty to animals both on this side of the Atlantic and abroad. That these societies do a vast amount of good is undeniable but in carrying out their objects there is no necessity in giving way to prejudice or fanaticism.

Most men shrink from giving unnecessary pain to living animals, but in conducting research by vivisection the operator must abandon all feeling in the matter. In considering this subject it must be remembered that the experiments are not without aim. They are not conducted simply and only as a *passe temps*, an object is to be attained in each instance, and that object the acquisition of knowledge, to be applied in the alleviation of human suffering. In performing experiments on living animals the physiologist follows out the most humane method at his disposal, the animal is placed under the influence of an anæsthetic, so that physical suffering is spared but even without the use of such means, where it is judged to be injurious to the success of the experiment, we cannot think that such an experiment should be abandoned on that account, if the end justifies the means. There are without doubt many problems in science the solution of which can alone be determined by experiments on living beings. The satisfactory solution of these

problems must confer lasting benefit on the human family as such discoveries tend to relieve suffering or avert the ravages of disease.

The surgeon conceives the possibility of performing some surgical operation, (not hitherto performed,) but before submitting his patient to the risk of a doubtful operation, he experiments on a living animal. This he does purely in the interests of suffering humanity and with a view of curing some malady which has baffled his skill under other treatment. The medical jurist or toxicologist experiments on living animals to prove the action of certain poisonous substances with a view to the detection of crime or the saving of life by the administration of a proper antidote Again, it may be desirable to ascertain the living functions of certain organs. How can this knowledge be obtained without experiment on a living animal. The vivisector can not employ one of his own kind for the purposes of research so that he turns to a living animal belonging to some other species. In the whole controversy, if controversy it can be called, there is, on the side of those who condemn vivisection an expression of excessive harshness almost amounting to rankling hate, at what they regard as the horrible and unnecessary cruelty of the experimentalists. On the side of the vivisectionists there is silence, firm and persistent. The opponents not only decry these acts, but endeavour by moral suasion to improve the perceptions of those who perpetrate them, indeed they go a step farther and would legislate against vivisection and check it by the lash and other inflictions, so that the looker on becomes bewildered, and wonders whether the dark ages are dawning once more on the world. As an illustration we copy the following amusing story from the *British and Foreign Medico Chrurgical Review* for April.

A lady who is ardently opposed to vivisection, and who would like to have the letter V branded on the right hand of every vivisectionist, was about to have a dinner party of ladies and gentlemen of her own opinion. The night preceeding this great occasion she ordered of her intelligent fishmonger a crimped skate, and in the afternoon of the important day was astounded by the announcement of the cook that the fishmonger, Mr. Donald (his further name we have pledged ourselves not to divulge], had failed to send in the fish. In dudgeon our philanthropic lady, whose impulses were always ahead of her

reason, whipped on her bonnet and away to the man of the marble slab and cold-blooded viands. She found him putting the finishing touch to the skate, and, having first rated her experimentalist for his delay, went on, "peppery like," as Donald noted, to find fault with his work. Donald, of course laid the delay on the market, and as to the fault in the crimping he urged that if he couldn't get the animals until they had hardly a drop of life in their bodies, how could they be expected to crimp like real live ones? The lady, convinced by Donald's arguments, or fearing further delay, calmed down, and, begging the fish might be sent round immediately, was about to leave the shop, when her eye caught sight of a small moving object on the side counter. "Why, Mr. Donald," she exclaimed, "what is this: it is moving like a watch?" "That, madam," replies Donald, "is the heart of the skate; i'ts laid aside for a medical gentleman, wha' studies the heart, to see how long it will just throb." The effect on the lady was electrical. "A vivisectionist!" she almost screamed, "and you, Donald, minister to his barbarities?" Donald stood aghast; he expected next moment to hear the request that he might send in his bill. But a new light seemed to fill his visitor's face; she spoke persuasively, yet decidedly, "Donald," she asked, "who is this wretch? We may now establish a case," Donald was on guard; he was between Scilla and Charybdis, for the doctor was as good a customer as the philanthropic lady; but he was equal to the occasion. "Madam," he replied, "I ken neathing o' the gentleman mair than he's student-like, grave and serious. When he ca's to-day for the heart, if I dinna mind his name and address, I'll e'en ask him." "Do, Mr. Donald, pray do," she answered, and seeing a hansom cab passing the door hailed it instanter. Donald went to open the folding doors of the vehicle for her and heard the conversation with the cab man. "Drive me quickly to the R.S.P.C.A." "To the Arispiciary," says the driver, spelling it to himself. Then down into the cab, "Is it the new resterong at 'Ighbury, mum?"

"No, it's the animal place; take me, take me to Mr. Colam!"

Cabby, who thought he now saw his way,—down again into the cab, "At the Zoo, mum, I suppose."

"The Zoo! No, though I believe that's a bad place enough. Jermyn Street."

And away as fast as a wearied horse,—keeping a hasty lady from friends expected at dinner,—could speed under influence of jerk of rein and cut of whip, away she sped.

Meanwhile, Donald, surmising that his shop might by-and-by be under uncomfortable surveillence, picked up the still beating skate's heart, put it into a gallipot, and away himsrlf with it to his patron the doctor. Could he see the doctor for just a second? He could, and was shewn straight into the study. The man of science was busy fitting up a reoscope when Donald entered.

"I brought ye, sir, the skate's heart; it seemed to me to be stopping a wee, so I brought it mysel'." "Thank you much," answered the doctor, taking his treasure and watching the motion. "It is a strange phenomenon."

"Mair strange than ye yerself ken, doctor," said Donald, with a knowing look.

"All God's works are, Mr. Donald," was the solemn reply of the philosopher. "Thank you again, and good day."

And Donald, thinking he had done enough, withdrew. He had saved his patron from being possibly followed by a detective, which was what he wanted.

Whether the lady carried out her mission of mercy to the R.S.P.C.A. we cannot tell; but certain it is that at her select party, after she had carved up and feasted her visitors upon the animal that had been beflayed and vivisected for her, and had laid a little fault respecting the deficient crispness of the animal on the fishmonger, she explained generally, with tears in her eyes, that she was on the actual track of a wretch who for the pursuit of science cut out the heart itself of living animals, and pursued his researches for hours afterwards on the quivering flesh.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Surgical Eye Cases.—By T. G. Roddick, M.D., Professor of Clinical Surgery, McGill University, attending Physician to the Montreal General Hospital.

(Read before the Medico-Chirurgical Society, of Montreal.)

Mr. President and Gentlemen:—It is a remarkable fact that among all the papers read before this Society from time to time during the past five years, one only has reference to the surgery of that most important and much-abused organ, the Eye. This is a matter for regret, as in a city like this, when specialists for sundry reasons have never flourished, at all events until very recently, many of our members must have had, now and then, eye cases of surgical interest, which it would have been well had they related here.

The cases, which make up the paper I have hurriedly prepared for this evening, happened among other injuries and surgical diseases treated by me in the wards of the Montreal General Hospital during the first quarter of this year.

Case 1.—W. W., aged 56, laborer, was admitted into the Montreal General Hospital on the 1st March under my care, suffering from certain injuries received while blasting on the mountain side. On examination I found sundry wounds and bruises, mainly of trifling character, on the hands, arms, and face. The eyes were, however, closed, (lids very much swollen) and apparently the seat of the graver injuries. As it was impossible, on account of the

spasm and photophobia to open the lids sufficiently to make anything like a satisfactory examination of the more important structures within, chloroform was administered. Dr. Chipman, I might mention, had succeeded at the time the man was admitted, some two hours before, in extracting from between the lids of the right eye a considerable quantity of dirt, containing minute splinters of wood, from a pole, for ramming down the powder, which the man held in his hand. Under the anæsthetic I removed from between and within the lids of the same (right) eye, what might be considered in this situation an enormous quantity of the same material, with this addition that there were two splinters of wood, jagged and united by a minute fibre, in size equal to the ordinary match, and sticking far into the swollen conjunctiva, in a direction from below upwards and inwards at the outer angle of the eye. Otherwise the ball appeared uninjured, with the exception of a general abrasion of the corneal surface.

Turning to the left eye, I found also an incredible amount of debris, with one splinter much larger than anything yet described, sticking through the conjuctiva and into the cellular tissue at the inner angle of the eye. This looked exactly as if it had been chewed, and one of the little bundles of fibres teased out from the rest had taken a separate and more oblique course, and pierced the sclerotic coat at about two lines from the margin of the cornea. I separated with a scissors, what we might, to be more clear, designate the sclerotic from the conjunctival portion. The latter I rapidly and easily removed, while the other requiring more caution in its manipulation, I extracted with some difficulty, owing to its jagged and uneven nature. The wound remaining appeared about a line and a half in length, with a slight angle about the centre. Through it, following the splinter, immediately flowed a small quantity of vitreous. I was anxious to use a fine suture to bring the edges together as well as possible with the hope of a more speedy union, but there was no needle to be had at the time sufficiently fine

for the purpose. On more careful examination of the eye, I now noticed a slight opacity of the cornea, although this fact was not easily established, owing to a haziness of the aqueous humour from the effusion, probably from the iris, of a minute quantity of blood.

A strong solution of Atropine was introduced into both eyes, and ice water ordered to be sedulously applied. Internally a grain of opium was prescribed to ensure freedom from pain and rest.

The question now arose in my mind as to the possibility of a portion of the splinter remaining embedded in the deeper structures of the eye, where it was destined almost assuredly to bring about trouble sooner or later. Under the circumstances, however, no surgical interference, I take it, was justifiable at this juncture. Careful examination of the lens failed to indicate the presence of any foreign body there, or extraction would have been called for. There was a probability, and a fair one, that the wound in the sclerotic would heal, and the man be left with a damaged and comparatively useful eye.

On the day following the accident, as might have been expected, the lids and conjunctivæ of both eyes were very much swollen and chemosed. The man complained of very little pain, however. To relieve the congestion, I everted the lids and scarified the conjunctiva most freely, the bleeding being afterwards encouraged for two or three hours with hot water fomentations. Atropine was again dropped in, and a brisk cathartic in the shape of a black draught ordered.

March 3rd.—Dr. Chipman informs me that owing to the great supra-orbital pain complained of by the patient last night it became necessary to administer morphia hypodermically, and repeat the same by the mouth in six hours. I found the man still suffering very great pain in the left forehead and temple, pulse 112, tongue furred, entire loss of appetite and nausea. I found the cornea very hazy, and the aqueous beyond appeared turbid—all signs and symptoms of grave import. I now ordered four leeches to the

temple and changed the cold applications for hot fomentations of belladonna and poppy water mixed; internally, powders containing one grain of Opium and two grains of Calomel, to be given every four hours.

March 4th.—The change for the worse to-day in the appearance of the eye is greater than could have been anticipated. The cornea has now entirely lost its brilliancy, pus being evidently deposited between the layers. There is also a large hypopion, or deposition of pus, in the anterior chamber, all unmistakable signs of general suppurative choroiditis. What was still more serious, however, the man states that since yesterday he has felt an uneasiness about the good eye in the shape of slight darting pains through it, momentary flashes of light, &c., which bother him considerably, and tend to make him desponding and nervous.

I have now fully made up my mind, notwithstanding the active disease present, to extirpate the eye-ball and thus ward off the almost inevitable sympathetic trouble to the other organ, which, by the way, was all this time being rapidly repaired. Dr. Ross, who was also attending the hospital at the time, was kind enough to see the case with me. We argued to the question of paracentesis and incision of the ball, treating it after the fashion of an ordinary abscess, but at length came to the conclusion, that our chief aim being the health of the other eye, nothing short of removal would insure perfect protection.

The patient was at once put under the influence of ether, and the operation of excision proceeded with by the subconjunctival method. This was done rapidly and without any trouble, and the part dressed with the cold compresses. Dr. Ross kindly dissected the eye for me before his clinical class, but failed to find any foreign body. There was, however, slight opacity of the lens as we had made out almost conclusively on the first day. The vitreous was opaque and almost purulent looking in places, while the retinal membrane was raised in little spots and very much congested.

Without further comment, I might state, that the case

made an excellent recovery. The troublesome symptoms, sympathetic in character, already described as occurring in the right eye, entirely disappeared on the second day after the operation. There was a superficial ulcer on the cornea of the remaining eye, however, which resisted treatment for three or four weeks, but at length healed over leaving a slight opacity. The man was discharged from hospital in the sixth week after admission.

CASE 2.—This I thought I would mention, more from its being an extraordinary accident, than on account of its possessing any special interest for us at this time.

T. H., aged 23, a powerful young Irishman, and companion of the man whose case I have just described, was, it appears, also holding the wooden rammer, when the explosion took place. His face was scarred by the fragments of stone, wood, &c., beyond recognition. The swollen condition of his eyelids, however, pointed, as in the other man, to more serious mischief within. With the aid of chloroform I found between the lids of the right eye a considerable quantity of foreign matter, with fragments of stone, wood, &c. Two or three of the splinters of the latter of considerable size, stuck firmly into the conjunctiva in different directions, but were all readily removed.

Turning to the left eye,—as soon as I raised the upper lid a firm clot of blood, equal almost in size to the eyeball, was squeezed out, leaving what proved to be on more careful examination, an organ thoroughly disorganized, so that I could immediately pass my finger far back to the very fundus without being met by any of the more anterior structures of the ball. I found now what I had not before observed, that a fragment probably of stone, had carried away a considerable portion of the bony external boundary of the orbit, evidently ploughed its way through the structures of the globe and passed out at the inner angle. I washed out the cavity of the orbit thoroughly with a weak warm carbolic lotion, and applied cold lead lotion to both eyes.

For a few days there was very considerable constitutional disturbance, but otherwise the man made a good recovery, while the stump of the left eye is as good as can ordinarily be obtained by excision of the ball.

CASE 3.—This is a case of cataract on which I operated, and which I now bring before you to illustrate some of the difficulties occasionally encountered in this department of ophthalmic surgery.

W. F., aged 64, was admitted into the Montreal General Hospital under my care on the 10th of March of this year. He was found to be suffering from double cataract. That in the left eye being of five years standing; that of the right as many months, but of rapid growth. The man had been a farmer, and was, considering his age, in robust health. I looked upon the case as one favorable for operation by the extraction method.

March 12th.—The pupil of the left eye, the seat of the more advanced cataract, being fully dilated, and the patient being apparently under the influence of ether, assisted by my friend Dr. Ross, I proceeded with a Beer's knife to perform the lower flap operation, that being at the time to me the most convenient. I had entered the point of the knife fairly into the anterior chamber for a distance of nearly two lines, when the man recovering sensation moved his head violently from side to side. Fortunately I was enabled to withdraw the blade without doing any further damage, excepting the loss of a considerable quantity of aqueous. The question now arose should I proceed working in an anterior chamber partially empty and run the risk of wounding the iris, or close the eye and await the reaccumulation of aqueous. I chose the latter alternative.

March 14th.—The incision made in the cornea the day before yesterday is imperceptible, and the anterior chamber is now full as before. I have decided in again attempting the extraction. The patient being thoroughly anæsthetized I made the lower flap and coaxed out the lens without

the slightest difficulty, nothing occurring to complicate the operation—there was no wounding or protrusion of the iris, and the flap fell into its place and there remained. There appeared to be a small quantity of cortical matter occupying the pupil, but that I thought would be absorbed and hence did not meddle with it. Both eyes were closed with a compress of cotton wool and a bandage.

March 15th.—The man has been perfectly comfortable since the operation, having little or no pain in the eye excepting at times a slight smarting, which rapidly passed off. I looked at the eye to-day for the first time, and was rather disappointed at finding a considerable protrusion of the lower margin of the iris through the wound. An accident which I have known to happen after this operation had now occurred, being the displacement of the flap by the lower lid constantly pressing against it. Otherwise the case promised to be most favorable. The patient could see with very considerable distinctness, counting fingers placed up before him, and distinguishing the various faces round his bed. I did nothing further in the way of treatment than simply instil a four grain solution of atropine, apply a firm compress and bandage the eye as before.

For the three days following I made no change in the treatment, but on the fourth, all inflammatory action consequent on the operation having subsided, I touched the protruding iris (now about the size of a hemp seed) with the solid nitrate of silver. The daily instillation of atropine and the compress were continued.

The application of the caustic was followed for some hours with very great pain and lighted up more inflammation than I thought was beneficial. After three days no improvement in the size or condition of the prolapse was noticeable. I now ordered the part to be brushed each day with a ten grain solution of the nitrate, the atropine to be continued as before. The protruding iris had now assumed

a vesiculated appearance although as large or even more prominent than before. The vision however had not become impaired. The pupil was very much altered in shape being much longer in its vertical than its longitudinal diameter. The caustic solution and compress having signally failed after a fair trial, I desired to adopt the plan recommended by Mr. Bowman, and which has been so successful in his hands, namely, puncturing the prolapse with a fine needle. This I did with an ordinary sewing needle, introducing it far enough to enter the anterior chamber and evacuate a small portion of the aqueous, with a view to relieving the pressure from behind. This proceeding I repeated every third day with a marked improvement each time, and was gratified at the end of ten days to find the prolapse entirely gone and the parts closely and apparently firmly united.

These cases, Gentlemen, may appear, and I have no doubt are to many of you commonplace enough in character, and you wonder, I dare say, why I have taken so much trouhle to lay them before you, but to me two of them, at least, have taught most valuable lessons.

Had I to deal with case 1 again, I believe I should adopt a somewhat different course. I would not fail for instance to close the wound in the sclerotic with a suture, as I originally intended. I have been much struck in looking up the literature of the subject with a case similar in almost every particular with my own—reported by Mr. Lawson in his very excellent little work "On the Diseases and Injuries of the Eye." He says the man came under his care a few hours after he had met with the following accident. Whilst engaged breaking stones. a fragment flew up, and struck him on the left eye. causing a jagged wound in the sclerotic in the lower part of the eye, at a distance from the cornea. There had been evidently an escape of a small quantity of vitreous. The wound was gaping, and its lower edge was prominent and stood away from the upper margin which was somewhat depresssed.

From the man's account it was clear that there was no particle of stone lodged within the eye. As it was impossible to bring the edges of the wound together without a suture, I introduced a single thread and brought the divided parts into apposition. The patient progressed most favorably, and the wound completely united. The presence of the stitch produced no irritation.

It is easily understood, as the same able opthalmologist explained, how difficult a matter it is to heal wounds of the sclerotic when we take into consideration its cup-like character, and the inability to adapt itself to the sudden diminution of bulk induced by an escape of the vitreous. Another difficulty also is the constant oozing of the vitreous through the wound, tending thus to keep the cut edges apart, and also prevent the eye from being again plumped out by an abundant secretion of aqueous. The employment of the suture will, as a rule, by promoting the escape of vitreous bring about a speedy union.

As to the propriety of excising the ball under the circumstances in which I performed the operation. The question might here also be raised,—Would not paracentesis or incision have answered every purpose? As to the former proceeding I find ophthalmic surgeons are not united in its favor. Mr. Lawson, whose opinion I am inclined to respect as equal to any other living authority, states that in severe bad cases of ophthalmitis which have come under his observation, he is satisfied that the ultimate destruction of the eye has been hastened by an injudicious paracentesis of the cornea. Besides where suppuration proceeds with the rapidity witnessed in the case I have reported, the natural surmise is that a foreign body is present embedded deep in the structures of the ball, and how, it may be asked, could paracentesis be of any permanent benefit here. Incision even might fail to meet the difficulty.

In a word, it must be remembered that we have a sound organ standing in imminent danger of being affected by

sympathy, and that the proceeding which will most rapidly and effectually remove the cause of that jeopardy is *the* proceeding par excellence to be adopted.

As to the third case—that of cataract—I thought I learnt here two valuable lessons, but as the paper is now much longer than I had at first intended, I will be very brief.

It will be remembered that owing to the movements of the patient, only partially under the influence of the anæsthetic, I found it necessary to withdraw the knife, whose point had then reached nearly to to the centre of the aqueous chamber. Rather than hazard a failure, I closed the eye and determined to await the accumulation of the aqueous humour. I find it is recommended by some in a contingency of this kind to proceed with the operation using a narrow or Graefe's knife, introduced into the original incision. At the risk of being thought over-cautious, or of incurring the displeasure of my patient, I should pursue no other course than that adopted on the occasion referred to.

The prolapse of the iris which gave so much trouble in the case, I would endeavour to avoid in the future. It is an objection constantly raised to the lower flap operation that the lid is very apt to interfere with the flap. The same does not obtain where the upper section is made, and as the choice simply depends on the dexterity of the operation I should in the future prefer the upper flap operation. Mr. Williams of Boston, I understand, introduces a simple, fine suture into the flaps and in that way draws them nicely in apposition, and I believe that would meet this objection to the lower flap, but as few of us have the dexterity of a Williams, I am inclined to think we might often do more mischief in making the attempt than could be easily repaired.

The treatment of the prolapsed iris is also a matter of some interest to us. It will be remembered that the ordinary measures adopted of compression, and the application of caustics, both in the solid form and in solution, failed completely in having any good effect on the prolapse, and that the method of puncturing with a fine needle, three times repeated only, completely removed it. I might state that I met the cataract patient in the street a day or two after he was discharged from hospital, and that he recognized me.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Dislocation between the 6th and 7th Cervical Vertebræ; fracture of Transverse Process of 7th on the left side. Death. Autopsy. Under care of DR. REDDY. Reported by CHARLES H. MURRAY, B.A.

Richard Mitchell, aged 55, about 5 ft. 9 in. in height, a very muscular, stout, strong man, was brought to the Montreal General Hospital on the 12th May. The account he gave of himself was, that on the night before he had taken some gin for a cold, and feeling thirsty about four in the morning, went down to the tap for a drink, he slipped down the last two steps and jerked his head to one side; he remembers nothing after that. When he was discovered by the people of the house, he was found kneeling on the lowest step, his arms and head resting on a step above; his head was not jammed in any way. He had never been subject to epileptic fits.

Present state, 12.30: He is sensible but is heavy and drowsy, the effect of the gin, of which his breath smells, not having yet passed off. His left pupil is dilated, the right is of normal size; has no headache. The only place where he feels pain is in the back of the neck at about the 6th cervical vertebra. This is perfect and symmetrical anæsthesia of the extremities and all parts of the body below the line of the clavicles. There is hyperæsthesia of the right side of the neck, so that the state of the vertebral column cannot be ascertained. On the left side there is no hyperæsthesia, but there is perfect sensation. Sensation of the face is perfect. There is perfect loss of muscular power of the lower extremities. On tickling and pinching his feet, there was no reflex action at all in the left leg; very slight in the right; the legs are perfectly

flaccid. The muscles of the trunk are all paralysed, with the exception of the diaphragm and probably of the serratus magnus anticus, which is supplied by the external thoracic nerve. By these two muscles respiration is performed. The abdominal and intercostal muscles are paralysed. Inspiration is performed by the diaphragm chiefly, but if the dislocation be between the 6th and 7th the serratus magnus anticus must aid powerfully. This muscle is supplied by the external thoracic nerve which emerges between the 4th and 5th, and 5th and 6th cervical vertebræ passes behind the axillary plexus and is distributed to the serratus which arises from the base of the scapula and is inserted into the eight superior ribs. When the shoulders are fixed it lifts and expands the upper part of the chest, and also counteracts the diaphragm in depressing and drawing together the lower margin of the thorax and hence renders the act of inspiration more perfect. Expiration is performed by the recoil of the lungs and by the elasticity of the structures generally, and also by the weight and elasticity of the abdominal viscera and parietes causing the diaphragm when released to recede into the thorax, and in proportion as the ser. mag. ant raises the thorax the more will the parts be stretched and the greater will be the recoil. There are sonorous rales over the front of his chest. He frequently tries to cough but can't do so with any force whatsoever, expectoration being accomplished by the diaphragm and possibly of muscular fibres round the air tubes. By these means he is able to get the sputum into his mouth from whence it is wiped out. His abdomen is very prominent. Although there is anæsthesia in the upper extremities, yet there is no loss of motor power. His right arm is kept by his side and forearm at right angles to arm. Shaking continually. His left arm is also kept close to his side, and every few minutes he puts his left thumb into his mouth and sucks it and bites it alternately, but not so as to damage it. He continnally grinds his teeth. His voice is not distinct. He can swallow

liquids easily. His eyelids are usually closed. When spoken to he opens them with a terrified look and stares, regains consciousness and answers rationally. Occasionally there is spasmodic contraction of Levator palp. sup. There is frequent rolling of eyeballs. The position in which he rests is peculiar: he lies on his back, his head drawn towards left side so that his left cheek almost touches his shoulder. There is no rigidity of muscles of neck. The general surface of the body is cool. His face is pale. Heart-sounds barely heard; pulse 54, regular, small; resp. 30; temp. in axilla 96°. There is no mark of injury to head or neck, no bruising. His neck is exceedingly short and thick, so that no symptoms of dislocation or fracture can be made out. He had no headache; bladder distended; no dribbling of urine; no priapism. Dr. Reddy diagnosed dislocation between the sixth and seventh, possibly complicated with fracture. He ordered his urine to be drawn twice daily; air bed, and ol. Tig. gtt. I statim.

13*th*, *Morning*.—Last night slept but little; he beat his chest with his hands very much during the night. Towards morning, two or three times, his fœces escaped involuntarily. Very liquid in character, and once this morning again. To-day he is in much the same state. Sensation has however returned to the radial side of both his forearms and hands. There is not acute cutaneous sensibility along the line of junction between the sound and paralyzed parts. The dilatation of his pupil is less to-day. When his bed-clothes were being changed this morning, one of the patients held his body in the sitting posture for about a minute; he held his head leaning forward on his chest without any assistance. When laid down, did not suffer any evil consequences. He can shake his head from side to side, and occasionally does so, without experiencing much pain, but not from before backwards. Following mixture was ordered: Pot. Iod., ʒij.; Pot. Brom., ʒij.; Tr. Digital., ʒiv.; Aquæ ad., ʒvi.,—a table spoonful every four hours.

Two ounces brandy to be given in divided quantities daily.

6 *o'c. P. M.*—Has had no motion since morning. Has been breaking wind all day. He complains of chilliness, but has no tactile sensibility. He speaks much plainer; is not nearly so drowsy. Asks for porter; he takes milk and beef tea. He has now sensation in all parts of both arms, with the exception of the little finger and ulnar half of ring finger in both hands. He has a greater degree of sensation in his right than left arm. He has recovered sensation of top of chest, above a line passing about two inches above the nipples round the chest, but there is no motion of the intercostal muscles in this region. He complains of a great oppression at his stomach. The pain in the back of the neck is a stabbing pain, and is present all the time; there is no pain at any other part of his spine. Resp., 29. Pulse, 60. Temp. in axilla, 97 2-5. He does not throw his hands about in the same way, but he often rubs the wrist of his left hand over the top of his head for twenty seconds at a time.

14*th*, 9 *A. M.*—Seems a little brighter in his mental faculties. Left pupil nearly same size as right. Has great difficulty in getting up the phlegm; his face gets quite congested in the exertion. In breathing the phlegm rattles in his throat. His pulse is stronger—56; resp., 36. He asked to be moved higher up in bed, and was able to hold up his head when this was being done. The hyperæsthesia of right side of neck is gone. The abdomen is very tympanitic. Still breaks wind frequently. Has a frequent desire to pass his urine, but has not the power. The urine does not dribble away. He has ceased to grind his teeth. Temp. in axilla, 98 3-5. He feels very weak; only takes a few mouthfuls of beef tea, &c. He takes corn starch, sago, and a little porter, as he asked for it. His feet were pricked with pen-knife. No reflex action. Was ordered an injection of Turpentine, ℥ss. · Starch Op.

15*th*.—He has ceased to pass wind from the large bowel since last night. Abdomen very tympanitic, and breathing

is proportionately distressed. His body and limbs have become quite warm. Heart weaker. He is very restless, and says he is going to die. Dr. Reddy ordered O'Berne's tube to be passed up the large bowel to draw off flatus, with a view to relieve the breathing. At 5:30 P. M., O'Berne's tube had been in an hour, considerable amount of flatus and some feculent matter had escaped. The breathing, however, was not much relieved. Dr. Reddy then passed a very fine acupuncture needle into the colon above the cæcum; a little flatus escaped; then into the centre of the transverse portion, when a little more escaped; then into small intestines, when jets of air escaped for a short time. The man asked to be raised in bed, when the needles were withdrawn, and then a considerable quantity of flatus came up the œsophagus. Notwithstanding all these measures, the action of the diaphragm is nearly stopped from the distention, and asphyxia seems most threatening.

16*th, Morning.*—Condition much same. The distention of bowels steadily increasing. Temp., 90 4-5; pulse, 48. Brandy was increased to 4 oz. Towards evening his temperature was below 90 2-5. About 10 o'c. P. M., he asked the nurse for a drink, and then to be turned on his side. In about five minutes, when the nurse returned to see how he was, she found him dead. He died quietly, and was sensible to the last.

17*th. Autopsy.*—Seventeen hours after death, weather moderately warm. Cadaveric rigidity well marked. Face livid; body not discolored; both pupils dilated; left one most so; no bed sores.

Resting on the rect. ant. majores there was a considerable quantity of dark clotted blood in the cellular tissue. About the seat of injury there was extensive extravasation of blood. There was dislocation between the bodies of the 6th and 7th cervical vertebræ, the 6th projecting forwards in front of the 7th about half an inch. The ligamentum nuchæ, inter-spinous ligament, ligamenta subflava, and post common ligament, were all ruptured, and on the right

side, the inter-transverse ligament. There was dislocation between the articular surfaces of 6th and 7th on the right side. The articular processes on the left side were not dislocated, but there was a fracture extending through the base of the transverse process of the 7th; this part of the vertebra was broken into three pieces. The only union between the 6th and 7th was by means of the anterior common ligament, which was intact. The distance between the vertebræ was such that the finger could be introduced easily between the two bones. The cord was evenly compressed, and hence the paralysis was symmetrical. The pia mater was injected a couple of inches up from the seat of dislocation, and it was observed downwards for about three inches (as far as the end of bones which were taken out), but it probably extended further down than this. There were a couple of small clots beneath the dura mater, at the seat of injury. The grey matter of the cord was softened and very red. This redness extended up and down for about three-quarters of an inch. The white matter was softened but not congested.

Lungs.—The posterior and dependent parts are extentensively congested. Anterior portion not much congested; crepitant.

Heart.—About 2½ oz. fluid in pericardium; two patches of lymph on visceral layer; none on parietal. Left ventricle hypertrophied. None of cavities distended with blood. A large ante-mortem clot in right ventricle adherent to the walls. All valves sufficient. An atheromatous nodule size of a small pea at the bottom of one of sinuses of Valsalva.

Spleen and liver congested. Kidneys especially congested. The marks where the needles had entered the bowels, visible; slight redness round each aperture, and in one place where several apertures had been made as the needle had been partially withdrawn and again pushed in, several times, the vessels of the intestines for several inches on

either side, were beautifully injected. Head not examined.

REMARKS.—The dilatation of left pupil was, I think, probably due to irritation of nerve of iris, through injury to the sympathetic system in the neck, possibly of inferior cervical ganglion on the left side.

Case of Stricture of Urethra, almost impassable, cured by Divulsion, by Sir Henry Thompson's American Modified Divulsor, in which the Filiform Whalebone Bougie was used as a director. By JOHN REDDY, M.D., Attending Physician to the Montreal General Hospital, assisted by DR. WILKINS, Outdoor Attending Physician. Reported by C. H. MURRAY, B.A.

Thomas Cahill, aged 45, a native of Ireland, was admitted into the Montreal General Hospital under the care of Dr. Reddy, 30th April, 1875. A stout, able-bodied man, of medium height. Has been for the most part of his life a temperate man. About eleven years ago he had an attack of gonorrhœa, which he says was cured, but from his history it would appear that he had chronic gleet after this, continuing up to the present time. He had no pain or difficulty in micturating till seven years ago, when one very cold day, while shovelling snow in Quebec, he felt a sudden desire to make water, which was attended with severe scalding. The scalding lasted for three or four days and then ceased. The stream began from that period to diminish in size, and has continued to diminish up to the present time. Urinating has since been always attended with pain. If he took anything sour or drank spirits the desire to micturate was frequent and the act very painful. The symptoms were more severe in cold than warm weather. About three years ago his state became more distressing. He had pain and scalding in passing urine; the stream was then, for the first time, of a cork-screw shape and smaller than before; he had to pass his water more frequently and to strain at the same time or it would

not come away; he never could empty his bladder completely. These symptoms were more urgent in the daytime than at night; he very seldom had to get up at all at night, and never more than twice. At this time he sought advice from several doctors in Quebec, who tried to pass instruments, and usually after each attempt some bleeding took place. All failed from not having small enough instruments, as they told him. In the winter of '73 Dr. Lemieux passed a small bougie several times with difficulty and bleeding. This gave him some relief. The doctor told him to go to the hospital, where he could give more attention to him, but he did not go, and from that time up to the present, though his distress has increased steadily, he has had no attempts at passing an instrument made. He has lately noticed a slight gleety discharge from the meatus in the mornings before micturating.

Present Condition.—On attempting to micturate the urine comes away drop by drop. In order to hasten the process he presses the end of his penis to close the meatus and strains; when the urethra is distended, he presses from behind forwards, and forces out a small, straight stream. In this way he can relieve himself in from three to four minutes, but does not completely empty his bladder as some urine drops away afterwards. There is not much scalding or severe pain. After every attempt to urinate he has a slight rigor lasting for a few seconds. Micturition is more frequent in daytime than at night, he rarely if ever being disturbed at night. For three or four hours after drinking spirits or acids he has to micturate every ten or fifteen minutes, and the act is more painful. For the last two years the perineum and urethra are excessively itchy after micturition and he has often scratched the skin off in his distress.

As the stricture was permeable to no instruments in the hospital, Dr. Reddy determined to avail himself of the use of the instruments kindly placed at his disposal by Dr Wilkins, who assisted him at the operation.

4th.—The patient's bowels having been previously opened and his diet regulated, he was brought to the operating theatre and placed on the table for greater convenience than could be obtained in the ward. No anæsthetic was used. 4.30 o'c.: No previous examination had been made, for Dr. Reddy had decided, on account of his previous history, that to avoid irritation he would not explore the passage till he made the attempt with the whalebone filiform bougie, the utility of which he was most anxious to test. The stricture was found to be situated in the membranous portion of the urethra close to the prostatic portion. There were numerous false passages opening near this point, the point of the bougie running into oblique narrow passages to the right. A No. 2 French gum elastic bougie failed to pass; it was caught at the commencement of the stricture, as was also Sir Henry Thompson's probe-pointed catheter modified by Otis. A whalebone filiform bougie 14 inches long, was tried without success, one of smaller diameter 2 feet long also failed. Warm olive oil was then injected into the urethra, the bougies were then again tried but all stopped at the same point and were directed off to the right, the patient who had the most exquisite sensibility of the position of the instrument gave warning whenever it entered a false passage which was an aid, as then the instrument was withdrawn partially, and then slightly rotated, being at the same time pushed forwards. Notwithstanding this all their efforts were unavailing. Filiform catgut bougies were then inserted to engage their points in the lacunæ and false passages, and then the whalebone filiform bougies were inserted to find if possible the orifice of the stricture. Several times this object was thought to have been attained and the other bougies were withdrawn, but it was an illusive hope, again and again the same means were tried. The finest manipulation and dexterous devices being exhibted by both Drs. Reddy and Wilkins but without success, till finally when success seemed to be about hopeless Dr.

Wilkins by a fortunate manœuvre succeeded in passing a whalebone filiform bougie 14 inches long into the bladder. This was felt with the finger in recto. Sir H. Thompson's Divulsor. American modified was then carefully introduced by Dr. Reidy over the whalebone guide. Dr. Wilkins holding the latter, till the point of greatest dilatability corresponded to the centre of the stricture, the instrument was ascertained to be in bladder by the finger in recto, the handle was then rapidly turned till the blades were separated so that their circumference as afterwards measured was 1¼ in., equal to the amount of dilatation that would be caused by a No. 12 English gum elastic bougie. The stricture was distinctly heard to tear. The instrument in being unscrewed was pushed on further into the bladder and so avoided enclosing in the closing blades, a fold of mucous membrane at this point of junction. The operation of Divulsion caused a good deal of pain, after the withdrawal of the instrument some blood appeared, not much in amount, and then a full stream of urine, about 2 oz. were passed. The delight of the man was extreme, such a stream he had not seen for seven years. A No. 11 English gum elastic bougie was passed this was ordered to be left in three-quarters of an hour and if he took a chill Pulv. Dover gr. x to be given. He was carried to his ward and put in a warmer bed—the operation lasted one hour and a-half.

Evening.—He had several chills since the operation. At 8 o'clock was feverish. Dr. Cline, Assistant House Surgeon, gave him Pulv. Dover gr. x, he had still several chills and could not sleep. At 12 o'clock Dr. Cline gave him Pulv. Dover gr. x, Quinine gr. iii. After this the chills ceased and his pulse became calmer but he did not sleep during the night—had a headache in the morning when he next passed water it came in a full round stream.

5th.—Urine acid, no albumen—has pain in urethra and headache when he urinates, pulse 56 full, firm, strong tongue whitish, temp. 100½; was put on milk diet, milk, beef tea, porridge extra.

6th.—Pulse 53, resp. 20. temp. 98⅖; stream large, no pain, had Liq. Morphiæ mur. *M* xl last night—slept for a few hours—feels quite well to-day.

9th.—Sleeps well; full stream; not the slightest pain.

11th.—A No. 10 English Catheter was tried but failed to pass. A No. 11 gum elastic bougie was passed and left in for one-and-half hours.

15th.—A No. 10 Catheter again failed. A No. 7 passed into bladder easily. Steel sounds would have been the proper instrument to have used, but at that time none were available.

18th.—No. 7 Catheter passed. This was also done on the 22nd.

There is not now the slightest difficulty in passing the Catheter and the cure is a perfect one; the instrument will be passed at intervals for some time to come.

This operation shows what may be done with filiform bougies intelligently used, so that it may be said that impassable strictures will be one of the greatest rarities in a surgeon's practice, and it also shows that in future Syme's operation need not be had recourse to till Divulsion has had at least a fair trial.

Periscopic Department.

SURGERY.

Bertholdt on Dislocation of the Cervical Vertebra.

Dr. Bertholdt, of Nurnberg, communicates (*Aerztliches Intelligenz-Blatt*, April 6, 1875) the following case of dislocation of the sixth cervical vertebra towards the right side. The patient was a young man aged nineteen, who in washing his neck sharply turned his head towards the left side, and felt a crack on the right, accompanied by severe pain, and inability to get his head back again into its proper position. An hour afterwards he was seen by Dr. Bertholdt,

who found him with his face congested and red, the head askew, the chin resting on the left shoulder. On the right side there was stretching and undue prominence of the muscles of the neck, and on the left a corresponding hollow. The spinous processes of the cervical vertebræ were not in a straight line but in a curve, the convexity of which was directed towards the right side. The patient complained of intense pain in the neck, and any attempt at movement was unbearable. The diagnosis was easy. Reduction was attempted in the following way. Dr. Bertholdt got on a stool and fixed the patient's head by taking the occiput and chin in both hands, making extension upwards, using the weight of the body for counter-extension, and by means of a subsequent rotary movement, the dislocation was reduced. The patient was able to move his head readily in all directions afterwards, and soon recovered.—*London Medical Record.*

Sir H. Thompson's Operations for Stone in the Adult.

Sir Henry Thombson compares in the *Lancet*, his last 100 cases of operation in *the adult* with Martineau's famous series of 84 cases with only 2 deaths. He has not included any patient below 22 years of age, at which there happens to be one. There are only four patients, including that one, below 50 years of age, while in Martineau's series of 84 there are not less than 54 below that age. Of the 100 cases, sixty-five are above 60 years of age (only twelve are above that age in Martineau's list), and the mean age of the entire 100 cases is not less than 63½ years (the mean of Martineau's entire adult series is under 47 years).

Ninety-six were adult males, four were adult females.

Of the 96 males, 87 were operated on by lithotrity and 9 by lateral lithotomy.

The mean age of the 87 operated on by lithotrity is 63½ years, the oldest being 83, the youngest 22, but only 4 were below 50 years.

The mean age of the 9 operated on by lithotomy was 63½ years also, their respective ages being 36, 59, 59, 61, 63, 70, 75, and 79.

Among the 87 operated on by lithotrity were 4 deaths, the ages were 61, 65, 66, and 81.

Among the 9 operated on by lithotomy were 2 deaths—viz., at 61 and 63.

Thus it will be seen that there was a total of 6 deaths in 96 patients, with a mean age of 63½, by the two operations.

Alluding to what has been termed a run of successful cases in practice, Sir H. Thompson observes that in this 100 there was one more remarkable than he has ever before heard of. He had a succession of 51 elderly adult cases without a single death. They occurred between July, 1873, and June, 1874. These 51 cases (7 more than Martineau's entire adult series of all ages) had a mean age of 64 years. —*The Doctor.*

Ophthalmoscopy in Cerebral Diseases.

Mr. Bouchut has recently given in the *Hôpital des Enfants Malades* the results of his labours with the ophthalmoscope as a means of investigating the condition of the brain. His lectures, of which an abstract appears in *La France Médicale*, opened with an exposition of the anatomical and physiological relations of the eye with the brain and spinal cord, in order to show the influence of cerebro-spinal lesions upon the optic nerve, the retina, and the choroid. He lays down four laws as to the formation of intra-ocular lesions caused by diseases of the brain, the cord, and the meninges:

1. Whenever the circulation is impeded in the cranium or in the sinuses or meningeal vessels by compression of the ventricles distended by serum or other cause, an arrest of the venous circulation takes place, which produces in the eye swelling, hyperæmia, and œdema of the papilla, varicosities of the veins, and sometimes hæmorrhages.

2. When a tumour with encephalitis, or when partial encephalitis exists, it causes an inflammation which brings about sclerosis of the optic nerve and exudations which imprison the papilla, and, at length cause its atrophy.

3. If the cord is affected either by anterior or posterior sclerosis it acts upon the eye through the great sympathetic, giving rise to hyperæmia of the papilla ending in atrophy. This occurs in locomotor ataxy.

4. In every diathesis and in cases of poisoning when the whole body suffers the eye suffers with it, and we meet with certain forms of neuritis or choroiditis.

M. Bouchut exhibited more than 100 figures drawn during the twelve years over which his researches have extended, and then demonstrated the various ocular lesions produced by diseases of the nervous centres. He showed cases of spinal neuritis, and those which result from locomotor ataxy; and then of neuritis and neuroretinitis, produced by meningitis (tubercular, typhoid, or rheumatic); by cerebral hæmorrhage and softening; by hydrocephalus and thrombosis of the sinuses; by chronic encephalitis, and by the same condition resulting from heart disease; by tumours of the brain; by tuberculosis; by syphilis; by albuminuria; by tuberculosis; by syphilis; by albuminuria; by leucæmia; and, finally, neuritis resulting from paralysis of the sixth pair consequent upon certain forms of epilepsy, hallucinations, concussion of the brain, &c.—*The Doctor.*

MEDICINE.

Kramer on Two Interesting Cases of Variola.

The first of these cases, which are reported by Emmanuel Kramer in the *Vierteljahrschrift fur Dermatologie und Syphilis* (1874), was that of a young man, aged seventeen, admitted to the small-pox hospital at Vienna on June 13, 1874, on the fourth day of his attack. Vesicles were disseminated all over the body, and were beginning to change

into pustules here and there. There was diffused erythema all over the body, most intense at the level of the right femoral triangle: it disappeared on the 15th. On the 17th, the eighth day of the illness, there was a scarlatinous redness of the whole body, deepest on the pelvis, arms and thighs. Redness, with punctured ecchymoses on the velum palati and adenitis of the cervical glands, especially on the left side, were also present. Some of the variolous pustules were in a state of suppuration, whilst others were already dried up. The urine contained albumen. Temperature 103·60 ° Fahr. On the 18th the variolous eruption was dried up; there was double submaxillary adenitis, with a little albumen in the urine. Temperature 104·72 ° Fahr. On the 20th there was a miliary eruption at the bend of the elbow; on the 23rd the scarlatinous eruption began to desquamate; on the 27th erysipelas of the face made its appearance, but disappeared very rapidly. Convalescence set in at the beginning of July, but the patient had two attacks of erysipelas in the face, one on July 20, the other on the 29th; both, however, were extremely mild and almost apyretic.

The second case was one of variola immediately consecutive on a previous attack. The patient was a young man, aged eighteen, who came into the small-pox hospital on the fifth day of an attack of variola discreta. The pustules began to dry up at the end of a week. On the sixteenth day after the appearance of the disease the patient had violent shivering, a temperature of 103·8 ° Fahr. and lumbar rachialgia. On the 29th day there was diffused generalised erythema, and at night the fever rose to forty degrees. On the thirty-first day variolous efflorescences made their appearance on the face, hands, and feet. The first signs of the drying up of the fresh eruption appeared on the face on the thirty-fourth day, and recovery ensued without any accident.—*London Medical Record.*

Spontaneous visible pulsation of the Retinal Vessels in connection with Aortic Regurgitation. By STEPHEN MACKENZIE, M.B., M.R.C.P., Assistant-Physician to the London Hospital.

Although recognized and described, spontaneous pulsation of the retinal vessels in aortic regurgitation has not met with much attention at the hands either of ophthalmologists or physicians. My object is not to write an exhaustive paper on this subject, but briefly to record a series of cases under my care in which the phenomenon in question was present.

The subject has been studied with great care by Dr. Otto Becker (*Graef's Archiv*, 18 Band., Abth. i., p. 206, of which an excellent abstract is given in the *Royal Ophthalamic Hospital Reports*, vol vii., p. 641, and which is alluded to by Mr. Soelberg Wells in the third edition of his "Treatise on Diseases of the Eye," p. 344).

Dr. Becker, who refers to the independent discovery and previous publication of similar observations by Dr. H. Quincke (*Berlin Klin. Wochensch.*, 1868, No. 34, and 1870, No. 21), found that spontaneous pulsation of the retinal arteries and veins was present in nearly all of a large series of cases where there was aortic insufficiency. He describes, indeed, three kinds of pulsation—arterial, venous, and capillary. The latter—a systolic blush and a disatolic pallor,—he says, he has only lately been able to verify; and I must confess to not having yet arrived at sufficiently intensive observations to discern it.

Dr. Becker especially advises that the attention of the observer be closely directed to the light streak on the arteries, which will be found to increase in breadth, and at the same time the broader streaks at either side widen at each beat of the heart. He also points out that the widening of a curve and the elongation of an artery can be best seen in the periphery of the retina, and that the pulsation can often be best made out where a vessel gives off one or more branches at an abrupt angle.

From my own observations I have found spontaneous visible pulsation in the retinal arteries and veins in a large proportion of cases of aortic regurgitation. It is especially marked when the ventricle is hypertrophied. Secondary dilatation of the mitral orifice does not interfere with its occurrence as long as the power of the ventricle is maintained; and the phenomenon is generally most marked when the pulse characteristic of aortic regurgitation is most developed.

The pulsation is most obvious in the veins, but its occurrence in them is of little importance unless there is also arterial pulsation. Pulsation of the central veins just at the point of emergence is common in healthy eyes, and under various morbid conditions. The arterial pulsation is variable in extent and range. It is sometimes limited to a few vessels of one eye, or, at least, is more readily detected in some than in others. Sometimes it is visible in nearly all the arterial trunks and many of the smaller branches. It is often most marked, and occasionally confined to the limits of the disc; but more usually extends for a considerable way along the retina, for a distance equal to two or three diameters of the disc. It is generally well seen where a vessel makes a more or less sudden curve, the amplitude of which may be observed in increase at each beat of the heart. Sometimes a vessel may be seen to elongate most distinctly, and when the pulsation is present in a very small vessel, it may collapse and disappear from sight during the diastole, and reappear at each systole.

The explanation of the phenomenon is obvious. We here have an opportunity of seeing—as, by palpation at the wrist, we have of feeling—the sudden forcible systole and the sudden collapsing of the pulse, due to the want of arterial tension from the insufficiency of the aortic valves. Considerable practice and much patience are required to to detect its occurrence, and in most cases the employment of the erect image is essential.

The reader is reminded that spontaneous pulsation some-

times occurs in healthy eyes without any vascular derangement; and that pulsation of the veins and arteries is a well-recognised symptom of glaucoma, and may be produced in healthy eyes by increasing the intraocular pressure by slightly compressing the globe. In these cases the pulsation is limited by the margin of the disc, and is explained by the altered resistance which the vessels encounter at this point.—(Jacobi, *Centralblatt*, 1875, xix.)

I will now briefly record the cases the subject of these remarks, all of which have been under my care at the London Hospital.

Case 1.—W. S., aged forty-five, admitted October 26, 1874. Had followed various occupations, some of them laborious. Had been a free drinker. Never had a rheumatic fever. Suffered from palpitation on and off for twenty years; it had been worse and accompanied by dyspnœa during the last eight months. A pallid man, with slightly puffy face; considerable dyspnœa. Apex-beat in fifth interspace, an inch and a half to the left of nipple; diffused. Cardiac dulness bounded by mid-sternum, fourth rib, and a line an inch and a half to the left of nipple. A loud to-and-fro murmur, heard loudest at mid-sternum, but conducted freely in all directions. Radial arteries very visible and tortuous. Pulsation in both arteries and veins of retina very distinct, and extending for some distance beyond the margin of the disc. The patient improved for a time, and was sent to a convalescent home. He soon relapsed, however, and was re-admitted. He died on February 5.

Autopsy, same day.—Acute endocarditis. The aortic valves were covered with vegetations, and perforated in several places. Left ventricle hypertrophied and dilated.

Case 2.—A. B., aged fifty, admitted December 17, 1874. Never had rheumatic fever. Was, according to her statement, well until a month before admission, when she was attacked robbed, her mouth being filled with mud to prevent her cries. A wasted woman, with silver-white hair (since girlhood), anæmic; skin fairly elastic. Apex-beat

outside nipple line, somewhat heaving. Cardiac dulness from a finger's breadth to right of sternum up to nipple line. Strong pulsation at episternal notch and over right sterno-clavicular articulation, and equally in both carotid arteries. No tumour or dulness at base of chest. A loud systolic murmur at the head of sternum, and a diastolic murmur conducted well downwards. Pulsation of the two radial arteries sudden, forcible, and collapsing; equal on the two sides. Pupils equal; larynx healthy; no dysphagia or dyspnœa. Visible arterial and venous pulsation extending for some distance over the retina. Patient improved slightly; now attending as an out-potient.

Case 3.—F. F., aged twenty, barman, admitted November 20, 1874. States he had rheumatic fever when seven years old, which lasted three weeks; since then has never been well. Fifteen months ago had another attack, by which he was laid up six weeks. Has had cough six months; dyspnœa one month, more urgent the last fourteen days; very anæmic; breathless. Heart's impulse most distinct two and a half inches below and half an inch to the left of nipple, heaving, and accompanied by a thrill. Cardiac dulness much increased. A blowing murmur with the systole at the apex, conducted into the axilla; and a sound which precedes the impulse, but appears to be exocardial. At the base of the chest a systolic and diastolic murmur, conducted for some distance, especially the latter downwards. Pulse at wrist very characteristic of aortic regurgitation; similar pulse in carotid and posterior tibial arteries. The pulsation in the retinal arteries and veins was extremely marked in this case, and extended for a considerable distance from the margin of the disc. The lad is now attending as an out-patient.

Case 4.—F. P., aged thirteen, admitted November 11, 1874. Had rheumatic fever when four and a half years old, which kept him in bed for six or seven weeks. He came to the hospital more for a pain in the head and discharge from the ear than for his cardiac condition. Impulse

in fifth interspace, immediately below nipple, stronger and more diffused than natural. A systolic murmur at apex conducted into axilla, a double murmur at the base, the diastolic very loud and freely conducted downwards. Pulse at wrist characteristic of aortic iusufficiency. Visibie pulsation of both arteries and veins over a considerable area of the retina. Now attending as an out-patient.

Case 5 G. H., aged fifty-one, stoker, admitted March 15, 1875. Had "rheumatism" when a child, and "rheumatics" on and off since. For two years occasional dyspnœa —used to find going up the ladder tried his breath—and had great heaviness at the chest; cough fourteen months; swelling of legs three weeks; vomiting and sweating a few days. Cardiac impulse in fifth interspace, a quarter of an inch to the left of nipple, somewhat heaving. Dulness bounded by mid-sternum, upper border of fourth rib, and a quarter of au inch to left of nipple. A systolic murmur at apex conducted into axilla, and a short systolic and a loud and prolonged diastolic murmur at the right margin of the upper part of the sternum. Very visible pulsation in the carotid, temporal, and facial arteries; the pulse can be seen to travel down from the axilla to the radial arteries at the wrist, which are very tortuous. The pulse is, in an extreme degree, that characteristic of aortic regurgitation. There is spontaneous visible pulsation in the retinal vessels of the left eye, for a short distance beyond the margin of the disc. In the right eye the veins can be seen to pulsate, but not the arteries. Still in the hospital.

Case 6.—G. R., aged twenty-six, labourer, admitted March 9, 1875. Stated to have been well until three months ago, when he caught cold. Shortness of breath two months. A cough came on, which has continued ever since. Three weeks before admission the face and then the legs began to swell. Has had no pain in chest. Has been a very free drinker. Always had very good health previously. Never had rheumatic fever. Anasarcous; extremely anæmic; a few purpuric spots on arms and legs.

No affection of gums, Very breathless. Blood, albumen, and casts in urine, Cardiac impulse in fifth interspace, immediately below nipple. Dulness extends from mid-sternum along third interspace to nipple line. On the evening of admission a systolic murmur was heard at the apex, conducted upwards and into the axilla, and a diastolic murmur heard very distinctly at the third left interspace. When I saw the patient on March 12 the heart-sounds were so obscured by rales that I could only make out that the second sound was not natural. The pulse at the wrist was that characteristic of aortic regurgitation, and the artery was very visible at the bend of the elbow. On making an opthalmoscopic examination, at first sight only venous pulsation could be detected, but on a more prolonged and careful examination most distinct pulsation could be seen in a small artery of the left eye. most markedly on the disc, but extending for some distance beyond its margin. In the opposite eye the pulsation was less distinct. The patient died March 22.

Autopsy, same day.—Acute endocarditis, especially affecting the aortic valves, which were perforated in several places. Mitral valves affected, but less severely. Left ventricle hypertrophied. Large mottled kidney. Embolism in spleen.

Case 7.—G. G., aged thirty four, railway porter, admitted March 13, 1875. Had rheumatic fever eleven years ago, and has been subject to rheumatism on and off since. Cough and dyspnœa one month; œdema of legs three weeks. A pale, spare man, with œdema of legs and scrotum. Apex-beat two and a half inches below and an inch to the left of nipple; diffused and slapping. Cardiac dulness bounded by right margin of sternum, upper border of fourth rib, and a line an inch and a half to the left of nipple. A loud hsrsh systolic murmur at apex conducted well into axilla; a very loud systolic murmur of different character, at the junction of second right rib with sternum; and a diastolic murmur at the same spot, which increases in in-

tensity as the middle of the sternum is approached. Carotid and radial pulses very visible, and have markedly the aortic-regurgitation quality. Retinal arteries and veins readily seen to pulsate for a distance equal to two diameters of the disc. Patient still in hospital.

Case 8—A. R., aged twenty-two, domestic servant. admitted March 10, 1875. Has not been quite well for three or four years; had vague pains in back, side, and chest. Had rheumatic fever twelve months ago, which laid her up for three months. Since then has had shortness of breath, increased on exertion; has had pains in chest; has sweated, and has lost a good deal of flesh. Very anæmic, with bright eye and burning skin; fluctuating temperature; no rigors. Cardiac impulse in fifth and sixth interspaces more than an inch to the left of nipple, heaving. Dulness bounded by left margin of sternum, lower border of fourth rib, and a line an inch to the left of nipple. A very loud systolic murmur heard all over the front of chest, but loudest at the upper and right margin of sternum; and a diastolic very loud and prolonged. Pulsation very visible in carotid arteries, but not elsewhere; pulse at wrist very abrupt and collapsing. There is distinct visible pulsation in the retinal arteries and veins extending for some distance over the retina. Patient still in hospital.—*Medical Times and Gazette.*

MIDWIFERY.

Hubert on Antenatal Baptism.

In the *Cours d'Accouchments*, a recent work on obstetrics by Dr. L. J. Hubert, Obstetric Professor in the Catholic University of Louvain, especially dedicated to the young gentlemen who come to that University to receive their medical education, the author finishes by a special chapter on the subject of antenatal baptism of infants.

When an infant is not in immediate danger of death, it

is at the church and by a priest it should be baptised; but when its life is imperilled, baptism may be conferred everywhere and by everybody (ecclesiastic or laic, man or woman, believer or infidel), and it is valid, provided it is administered with the intention, the material, and with the formula required.

Who, in case of peril, should administer baptism?

If the child be born, and a priest be present, he should always perform the rite. The father or mother may perform it only in the absence of any other qualified person. If the infant be born, and there be a man present capable of performing it, he should do it in preference to any woman, or even a midwife. But if the fœtus be not born, baptism *in utero* should be administered, either by the obstetrician or midwife in attendance.

The general purpose or intention to do what the Church does is sufficient.

The material is water, pure water from spring, river or well, and whether previously blessed or not.

The formula is: I baptise you in the name of the Father, of the Son, and of the Holy Spirit.

This formula should be articulated, and loud enough to be audible to the person himself.

The baptism is absolute or conditional according to circumstances, as we shall proceed to show. The manner varies as to whether the child is born or not.

A. If the child be born, the baptiser should himself pour water on the head of the child at three times, corresponding with the mention of the respective names of the Holy Trinity.

If there be any doubt respecting the life of the new-born, the formula should be modified thus: 'If thou art living, I baptise thee, etc.'

If there exists any doubt of the human nature of the being to be baptized (viz., if a marked monstrosity or rudimentary embryo), it should be added, 'If you are a rational being,

I baptize you,' etc. Abortions should receive the rite in the same manner as the infant at term.

If the ovum should be expelled entire, the baptism should first be done through the membranes saying : 'If you are fit to receive baptism I baptize you,' etc., then having opened the membranes the rite is repeated, adding, 'If thou hast not been baptized.' When the baptism is thus conditional, the conditions mentioned must be distinctly articulated; it is not sufficient to merely think or will it. Such is the canonical law.

B. Supposing the fœtus is still in whole, or in part unborn, it then becomes necessary to baptise it *in utero*, varying the method according to circumstances.

a. If the head be delivered it may be baptised either absolutely or conditionally, as if the birth were completed, and no subsequent baptism will be required.

b. If an arm or a foot present, these parts should be baptized, and the danger persisting, the chest and the head should be baptised, with the formula : 'If thou hast not been baptized,' etc,

c. But if the fœtus be still enclosed in the uterus, the baptism should be performed by carrying the fingers or a piece of lint, or sponge, or using a syphon or syringe, and with the formula as before stated, and modified according to the circumstances. After birth, it may be baptised, if alive.—*London Medical Record.*

Thomas on the Treatment of Extra-Uterine Fœtation by Operation.

On February 7th last, Dr. Thomas of New York, operated successfully in a case of extra-uterine fœtation. He first made an opening into the sac through the vaginal wall, using the galvano-cautery in order to avoid hæmorrhage. Then seizing the feet, he brought the body of the fœtus through the aperture, using a small pair of forceps to extract the head. Part of the placenta came away readily; but in

the attempt to get the remaining portion, such profuse hæmorrhage came on that he was obliged to inject a solution of persulphate of iron into the sac. Afterwards packing it with cotton-wool. With the exception of some slight symtoms of septicæmia, which soon disappeared under the persistent use of an injecton of carbolized water, the patient's recovery was without a drawback. This was the seventh case of extra-uterine pregnancy which Dr. Thomas had seen; all the others had proved fatal except one, in which the fœtus was passed by the rectum. In making the diagnosis of extra-uterine pregnancy, Dr. Thomas lays great stress upon the spasmodic attacks of agonizing pain, which show that the dilated Fallopian tube has begun to contract upon its contents. This is Nature's warning; and, unless prompt interference be attempted, rupture of the cyst and fatal collapse are almost certain to follow. The case is reported in full in the *American Medical Weekly*.

MATERIA MEDICA AND CHEMISTRY.

Will and Charteris on Chloral as an antidote to Strychnia.

BY J. W. LANGMORE.

The *British Medical Journal* for January 23rd contained a report by Dr. Hughes Bennett, on behalf of the committee appointed by the British Medical Association to investigate the antagonism of medicines, in which it was shown that in the lower animals chloral acts as an antidote to poisonous doses of strychnia. Dr. Ogilvie Will, of Aberdeen, records, in the *Edinburgh Medical Journal* for April, an opportunity which he lately had of demonstrating that this fact is true also of the human subject.

A druggist's apprentice, aged eighteen, swallowed with suicidal intent, a quantity of pure strychnia. The lad thought he had taken five or six grains—'certainly not less than four'—but the exact amount could not be ascertained as he had emptied it out of a bottle at haphazard; but from

the rapidity with which the symptoms appeared—only a few minutes after swallowing the poison—and, from the severity, it was evident that the dose must have been a large one.

Medical assistance was quickly obtained; and when Dr. Will saw the patient, an emetic had been given and other attempts made to induce vomiting, but without success; violent attacks of convulsions had already commenced, recurring at intervals of about five minutes; often several fits would follow in succession with only a minute or two between each. Dr. Will at once sent for some chloral; but whilst this was being procured the fits rapidly increased in severity and in duration, and when it arrived the patient appeared actually moribund—as if he could not live many minutes. Thirty grains of chloral were at once administered by the mouth, and 'in a few minutes the good effects began to manifest themselves—the intervals between the spasms became longer and the spasms themselves lessened in severity.' Another thirty grains were then injected under the skin, and almost immediately afterwards a further change for the better was observed. Later in the afternoon, however—the poison having been taken a little before 2 p.m.—the fits again began to increase gradually in frequency and intensity; accordingly at 5 p.m., thirty grains of chloral were again given by the mouth, and at 6.30 fifteen grains were injected hypodermically. After this the fits subsided; occasional twitchings continued for a few hours: these ceased during the night, and next day the patient was convalescent.

Dr. Charteris, of Glasgow, reports a very similar case in the *Lancet* for April 10. In this instance the patient, a very strong healthy man, aged thirty-nine, deliberately swallowed the contents of two sixpenny packets of 'Gibson's Vermin-Killer' mixed with whisky and ginger-beer, each packet containing fully two grains of strychnia. The poison was taken at about 11.30 A.M., soon after a very substantial meal of ham and eggs, etc., and the symptoms came on slowly and gradually. It was not till 3.30 P.M. that

he was taken to the Royal Infirmary; violent attacks of convulsions were then occurring about every ten minutes. The stomach-pump was used but the fits continued to increase in severity and frequency until 4.50, when ten grains of chloral were given, and the dose was cautiously repeated at intervals of about twenty minutes. There was little change until forty grains had been given, but then the improvement was rapid and marked; the spasms subsided into mere muscular twitches, and the patient became calmer. The chloral was now given at longer intervals; about 3 A.M. the spasms ceased altogether, and the patient complained only of aching and soreness in the muscles. He recovered completely in three or four days.—*London Medical Record.*

Pavesi on the External Applications of Hydrate of Chloral.

Dr. Carlo Pavesi, in the *Annali de Chimica (Milano)* for August, 1874, remarks that chloral was discovered in Germany by Liebig; its mode of preparation has been perfected by Dumas, Roussin, and Städeler, in France, and that it was first used as an hypnotic by Liebreich, at Berlin. It is, however, in Italy that its various antiseptic antifermentative, antiputrescent, and coagulative qualities were first discovered. It is likewise in Italy that it received its first successful applications at the hands of Pavesi, Ciattiglia, Merini, and Porta. At a later period, experimentalists of all countries have borne witness to its good effects both in medicine and in surgery, and even in veterinary surgery. In Italy Signor Amici used it to preserve different kinds of vegetables, potatoes and ergot of rye, and also to destroy the itch-acarus. Prato Giurkeo used it to preserve and disinfect leeches; and many others have utilised its different properties.

Dr. Pavesi states that by continuing the researches and experiences undertaken on this head in Italy, he has kept butter for eighteen months in an atmosphere charged with

chloral. With the exception of a slight odour, which, however, is not disagreeable, and disappears if the butter be washed in fresh water, it was in a perfectly sound and sweet condition. Meat and fish of all kinds, preserved for three years, lost all odour and flavour of chloral on being macerated in fresh water. After this maceration, the substance which had been submitted to these experiments regained their freshness and natural colour, and furnished products which had all the qualities requisite for good alimentation. The fibrine and the albumen were both in a perfectly satisfactory state. Dr. Cogniard, in a recent thesis on the external applications of hydrate of chloral, has made a summary of the numerous works written on this question, and does full justice to the part the Italian savans have had in discovering the peculiar qualities of chloral already specified.—*London Medical Record.*

Dr. Weir Mitchell on Nitrite of Amyl in Epilepsy.

The *Philadelphia Medical Times* for March 6 contains a paper by Dr. Weir Mitchell, on the use of nitrite of amyl in epilepsy, and in various other forms of spasm. He states that he has made extensive trials of this remedy during the last few years, and in April, 1872, published cases illustrating its power of arresting epileptic attacks, thus anticipating Dr. Crichton Browne's able essay on the same subject, which was published in the *West Riding Asylum Reports* for 1873. Dr. Mitchell does not think that the nitrite is capable of diminishing the frequency of the fit, but he has never known it fail to arrest an attack actually threatened when there was time to use it. Unfortunately it is only available for use by the patient in those somewhat rare cases in which the fit is preceded by a distinct aura. He directs such patients always to carry with them a phial containing a few drops of the remedy, and to inhale it freely on the first occurrence of the sensation; but in other cases, those who are familiar with the premonitory

symptoms can frequently check fits when the patient himself cannot. Dr. Mitchell has used the nitrite with more or less success in various other forms of intermittent spasm, some allied to *petit mal*, and others apparently hysterical in character. He thinks that it may also be occasionally used with advantage as an aid to diagnosis. Thus it is sometimes difficult to distinguish attacks of vertigo due merely to cerebral congestion from those due to *petit mal*; but in the one case inhalation of the nitrite will aggravate, or even produce the attacks, in the other it will give relief. In conclusion, Dr. Mitchell says that he has never met with any bad effects from the use of this remedy, though nervous patients occasionally complain of the throbbing and sense of fulness in the head which it causes.—*London Medical Record.*

Action of Iodine.

Free iodine, according to Kammerer (*Virchow's Archiv.*), acts by destroying the parts with which it is brought into contact, and he further considers that the general effect of iodide of potassium is due to the decomposition of the salt in the blood, iodine being set free.

Prof. Binz, of Bonn, believes that iodide of potassium undergoes the following changes when taken internally. In a healthy stomach, a part is changed by the hydrachloric acid into hydriodic acid ($K\,I + H\,Cl = K\,Cl + H\,I$); another portion is acted on by the chloride of sodium, so that iodide of sodium is formed; and if the dose be large enough, a part remains unaltered. All the three combinations quickly pass into the circulation. The hydriodic acid here meets with soda, and forms iodide of sodium: but the alkaline combinations of iodide are again acted on in the tissue by carbonic and other acids, and iodine is set free. This free iodide has the property of combining with certain albuminous bodies; and in this, Binz believes, lies the ex-

planation of the therapeutic action of the preparations of iodine.

Kammerer cannot agree with Binz, as iodine acts upon a watery solution of an alkaline carbonate with a formation of an iodide and an iodate of the alkali.

Beside the free iodine, Kammerer supposes that another body is formed, upon which iodine does not act, probably superoxide of potassium, which easily oxidises organic bodies, by which it is reduced to potash, thus increasing the metamorphosis of tissue. The organic bodies to be oxidised may be miasmatic substances and ferments, or later, fibrin and albuminous bodies.

Buchheim, after stating (*Archiv. f. Exper. Path. und Pharm.*) that iodide of potassium is an easily dialysable salt, and as such rapidly eliminated from various mucous membranes, finds in the ozone which is always developed wherever watery evaporation is rapidly going on, and therefore on the skin and mucous membranes, an agent capable of setting free the iodine from its combination, thus giving rise to coryza, &c. The acne-like eruption is due to the iodide eliminated with chloride of sodium in the perspiration.

Buchheim cannot admit the increased destruction of albuminoid material spoken of by Kammerer on either chemical or clinical grounds. A destruction of miasmatic substances and ferments is not among the observed effects of iodide of potassium. Neither the temperature nor the excretion of urea is increased by its use, as they should be according to Kammerer's theory. The emaciation and dyspeptic symptoms observed from the use of tincture of iodine and of Lugol's solution are not neeessary consequences even of the long-continued use of iodide of potassium.

Buchheim suggests that the free iodine acting upon the walls of the smaller blood-vessels and capillaries may so irritate them as to cause their contraction, and thus a diminished blood supply to certain very vascular organs, as the thyroid gland and the spleen, which show especial susceptibility to the action of this drug. With small doses this action is felt only upon organs having a specially favourable organisation for it, as in those just mentioned, while if the dose is larger the action is a more general one.—*The Doctor.*

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1875.

BURIAL OR CREMATION, WHICH?

The subject of Cremation is agitating the public mind at present, and is without question, the best means of disposing of human remains. What can be more purifying than fire; and viewed as a sanitary measure, destruction of all decomposing animal and vegetable material by fire, is far preferable to covering it up with earth. The object in entombment, is simply to bury the dead out of our sight, so that it may not be an offence to the living. To contemplate the gradual destruction of any body by decomposition, is most revolting; the gradual changes which occur during the process of decay, is a subject which is not sufficiently dwelt upon, and if it were, there are few of us living who would not consider it far more desirable to undergo the rapid destruction of our tissues by fire, than, permit them to be submitted to the more gradual, but equally certain disintegration which occurs in the grave. There is to our mind a feeling akin to horror at the thought of being placed in a deal box, or even in a metal casket, and buried with six feet of earth above our heads. We suppose it would matter very little to us how our remains were disposed of; nevertheless, personally, we should prefer the aid of a Sieman's furnace to reduce to its elements, in the space of half an hour, the tissues of which our body is made up. There are many arguments which can be advanced in favor of Cremation, not the least of which is the possible injury decomposing material can do to the living.

These are days in which utilitarian ideas are becoming

more general. Could there be less superstition mixed up with those sentiments, greater good would result to mankind in various ways. For instance, there is a very general feeling of respect for the dead, but this respect is carried just so far as is considered advantageous. It hardly survives a generation. We confess to a certain amount of sentiment as regards the remains of those we knew in life, loved and respected, and when we see their last resting place torn up and desecrated, we cannot but feel a certain amount of painful regret, that their bodies had not been submitted to the devouring element and their ashes scattered to the winds of heaven. There is a large amount of deception practiced in the present day in the treatment of the bodies of the dead. But that deception, we suppose, has not arrisen in this 19th century. The Church leads its votaries to believe in the essential necessity of what is termed Christian burial. We will not speak of the pomp and circumstance, the ringing of bells, etc., etc., which is considered genteel, but is in verity a tax on the living. It is a business, and a profitable one. What essential good is to be derived by this treatment of our dead? No earthly good to the survivors except, perhaps, in being looked upon by their fellow-mortals as well-to-do in this world because they paid for a fine funeral. We have heard a story of a Scotch Highland Chief whose funeral beggared his family. We know of a case in our own city where the head of a family was struck down suddenly, and where the survivors had to borrow some twenty-five or thirty dollars to bury their relative—half a cord of wood at eight dollars a cord would have reduced his remains to ashes; and if a Siemar's furnace had been at hand, a bushel or two of gas coke would have been sufficient. Viewed, therefore, from an economic point and from a sanitary point, Cremation has everything in its favor.

Then, again, with regard to burial of the dead in consecrated ground, the thing is a fraud. The ground is consecrated to preserve the superstitious belief of

the faithful. Just so long as it is quite convenient to the circumstances of the day will consecration last; as soon as the ground in question becomes of value by the encroachments of the living, will the consecration be removed, the resting places of the dead rooted up, and the ground itself sold for the purposes of the living. If monuments have been placed by a former generation to mark the hallowed spot, these must in turn give place, there is no practical use in retaining them, even though they did cost, perhaps, the price of many a meal, which has been abstained from by the destitute, rather than that so sacred a duty as raising a monument to the memory of the departed should be omitted. These thoughts have been suggested by the very practicel manner in which the two burial grounds in this city have been disposed of.

In the case of the old English burial ground, the property is situated in the heart of a populous district. It has been for over ninety years the burial place of protestant citizens of this City. In the year 1856, a By-Law was passed forbidding any further intramural interments and that ground was closed. In course of time, a Church of England Congregation, sought to secure the ground for the purpose of erecting thereon a free seat church, but so many conflicting elements existed in this connection, that the proposal was found to be impracticable. Subsequently an Act of Parliament was obtained, authorizing the sale of this property to the City, and a certain amount of money we believe was paid by the City to the Mount-Royal Cemetary Co., ostensibly for the purpose of removing all the bodies of, the dead lying in that ground, and placing them in the Mount-Royal Cemetary. This has not been done, the required time has elapsed, and the City of Montreal has entered upon occupancy of the ground in question, all the monuments are being rooted up, destroyed and reduced to fragments, the ground is to be levelled and converted into a garden, and in due course of time, we will have fountains playing and other modern improvements, which certainly

will be more agreeable to the eye and more healthful to the residents in the vicinity. Now we do not object to all this, but we simply say let us be consistent; do not on the one side condemn the disposal of the remains of the dead by fire as heathenish and demoralizing, and on the other treat the remains of the dead of a generation or two back, in a way in which heathens would have considered as demoralizing and contrary to law and order. Who now can believe in the sacredness of any parcel of land? Who will believe that there is any necessity for the hollow mockery of parading our dead through the streets, taking the remains to a church, and, if we can afford it, having a requiem sung, and from thence taking them to a consecrated burial ground? Who will now raise a monument to preserve the memory of any worthy or unworthy son of Adam? Better by far reduce his body to ashes by aid of a Sieman's furnace. But supposing the destruction of bodies by fire were to become general, it would not prevent the performance of any religious ceremony, as we suppose society is not prepared to submit to any sudden alteration in this respect.

THE CITY SMALL POX HOSPITAL.

We observe that the city authorities are becoming tired of keeping up the small pox hospital, and are returning to the old cry of establishing two separate institutions, one under the management of the Sisters of the Hotel Dieu, to constitute a Roman Catholic small pox hospital; the other to be under the charge of the Corporation of the Montreal General Hospital, and to constitute a Protestant establishment. We are surprised that this idea is again mooted, as public opinion was somewhat pronounced against such a measure. We have not seen any statement of the actual cost to the city of keeping up the small pox establishment at the Hall house, but suppose this action of the Corporation proceeds from the expensive

nature of that undertaking. We have heard that the Sisters of the Hotel Dieu demand an extra subsidy from the city for having treated so many cases of small pox, at so much a head per day. We believe that the Committee of the Montreal General Hospital refused to accept any payment from the city for cases of small pox treated in their wards, alleging that inasmuch as they already receive a grant of money from the Government they would not be doing quite the square thing to accept a subsidy from the city chest. This is perfectly correct in principle, but the Hotel Dieu Hospital is precisely in the same position; they, too, receive a grant from Government to aid in carrying on their charity.

It is desirable that a hospital, separate and distinct and not denominational, should be established. To carry out this idea it would be well to appoint a special committee, and although nothing like parsimony should be permitted, nevertheless, economy should guide its management. The money to be expended is public money, and will be advantageously spent if in the end it leads to the stamping out the disease small pox. The fact of the existence of small pox in an epidemic form has materially injured the trade of this city. The disease has declined in consequence of the more favorable weather for the ventilation and cleansing of our houses; but it still exists, and therefore the watchfulness and care of the City Health Department should not relax. In fact to be of further use redoubled energy should be shown; certainly to omit further precaution would be to give the disease a chance of a fresh outbreak, which would be exceedingly damaging to the best interests of the city.

RESULTS OF VACCINATION IN BOSTON, MASS.

"LOCAL VARIETIES.—There was not a case of small pox in Boston for the year ending May 1st, which is the first time the remark could have been made with truth for twenty years."

We extract the above from the Boston *Herald* of Monday, 17th May, 1875, and the gentleman who kindly sent it to

[illegible] most powerful argument [illegible] Every [illegible] an argument which [illegible] one which has been often repeated [illegible] of Berlin, giving the [illegible] of death by small pox in [illegible] for three decennial periods. From 1792 to 1801 there perished in Berlin, from small pox, 4,453 persons. In the year 1801 vaccination was introduced and practiced extensively, from 1802 to 1811 the death rate from small pox was reduced to 2,055; and in the next decennial period the deaths from small pox were further reduced to [illegible] annually. Take the instance of Sweden: from the official government returns we learn that in the year 1799, 11,500 persons perished by small pox; in 1800 there were 12,800 deaths from that malady. In the year 1800 vaccination was introduced into Sweden and rendered compulsory; in the year 1801 the deaths from small-pox were reduced to 6000, and in 1802 there were only 11 cases of death from small pox recorded as occurring throughout Sweden. We have always considered it a fatal mistake on the part of our Legislators [illegible] to adopt a compulsory system of vaccination [illegible] We [illegible]

were either without children, or that their offspring, if they had any, were considered by the Legislative Solons of 1861, to be quite incapable of contracting the disease smallpox. In fact for the past few years we have adopted the very wise *laisser faire* system; "we have sown the wind and are now reaping the whirlwind," inasmuch as there is hardly a locality throughout the country, where smallpox has not entered and is doing its work of destruction.

CHANGES IN THE FACULTY OF MEDICINE, McGILL UNIVERSITY.

At the termination of the last session of the Medical Faculty of McGill University, Dr. Campbell, the Dean of the Faculty and Professor of Surgery, announced his intention to resign his Chair as a teacher in the school, but said he would still remain in connection with the Faculty and retain the Deanship. This action necessitated a number of changes, and the following is a list of the appointments recently made by the Governors of the University:

Emeritus Professor of Surgery, GEORGE W. CAMPBELL, A.M., M.D., I.L.D., Dean of the Medical Faculty.

Theory and Practice of Surgery, G. E. FENWICK, M.D.

Clinical Surgery, THOMAS GEORGE RODDICK, M.D.

Medical Jurisprudence, WILLIAM GARDINER, M.D.

Hygiene, ROBERT T. GODFERY, A.M., M.D.

Dr. Campbell has been connected with McGill University and has lectured on surgery, without interruption, for forty years. His course was most instructive and eminently practical. We trust that the severing of his connection with the teaching body of this school will not in any way prove detrimental to the interests of the University. At a subsequent meeting of the Faculty of Medicine Dr. Frank Shepherd was named by them Demonstrator of Anatomy, rendered vacant by the appointment of Dr. Roddick to the Professorship of Clinical Surgery.

MONTREAL GENERAL HOSPITAL.

The office of House Surgeon to this institution, rendered vacant by the resignation of C. H. Chipman, M. D., was filled at the last quarterly meeting of the Governors of the Hospital, by the appointment of the Assistant House Surgeon, J. C. Cameron, M. D. The post vacated by Dr. Cameron was filled by the appointment thereto of J. D. Cline, B.A., M.D., who had served during the last twelve months as apothecary to the hospital; and the vacancy created by the advancement of Dr. Cline, was filled by the appointment of W. H. Burland, Esq. Mr. Burland has fulfilled all the requirements, and passed all the examinations necessary to entitle him to receive the degree of M.D., C.M., from the McGill University, but not being of the full age of twenty-one years, he only awaits his majority before he can graduate. We congratulate these gentlemen on their several appointments.

THE SANITARY ASSOCIATION OF MONTREAL.

We observe that a number of prominent citizens of Montreal have formed themselves into an association with the above title, their professed object being to improve, if possible, the sanitary condition of our city. The association is not in any way antogonistic to the legally constituted health department, but is desirous of seconding the efforts of the health department in every way in its power. Great good may result from the formation of this association. There are many subjects which will legitimately engage its attention, but we believe its mission lies in arousing public and individual attention to the urgency of adopting sanitary measures; in other words, of educating the masses in subjects with which they should be familiar, leaving the details of enforcing sanitary regulations to the police. We will refer again to this subject.

We have to acknowledge the receipt of communications from Dr. Duncan, Cowansville, Dr. Wood, Faribault, and Dr. Shepherd, Vienna, Austria. They will appear in our next.

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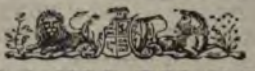

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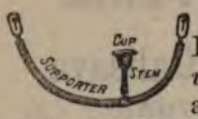

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OF THE

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THE CHAIR WILL BE TAKEN AT 10 A.M.

A. H. DAVID, M.D., Edin.,
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Montreal, 1st May, 1875.

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Instead of the customary oral examination for the degree of Doctor of Medicine, held at the end of the three years' period of study, a series of written examinations on all the main subjects of medical instruction has been distributed through the whole three years; and every candidate for the degree must past a satisfactory examination in every one of the principal departments of medical instruction during his period of study.

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End of second year—Medical Chemistry, Materia Medica, and Pathological Anatomy.
End of third year—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, and Surgery.

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Some of the patients suffered from Trigeminal, some from Cervico Occipital, some from Cervico Brachial Ne and one in the second class from Sciatica. All the cases in the first two classes were cured; of the third class thr cured, one of the patients having been afflicted 16 years, without a week's freedom from pain.

Sex.	Age.	Nerves Affected.	Duration of Attack.	Extreme Duration of Treatment.	Complication.	Re
		PRIMARY ACUTE CASES.				
M	40	R. Trigeminal.	4 days.	4 days.	Catarrh.	Rec
F	26	L. Trigeminal.	14 days.	10 days.	Anæmia.	
F	25	" "	21 days.	24 hours.	None.	
M	46	Cervico Occipital.	12 hours.	12 hours.	General Derangement.	
F	28	L. Trigeminal.	14 days.	48 hours.	Lactation.	
F	26	" "	6 days.	12 days.	Catarrh.	
		RECURRENT ACUTE CASES.				
F	60	R. Sciatic.	15 days.	36 hours.	Decay of Nature.	Rec
F	33	L. Trigeminal.	5 days.	6 days.	None.	
F	32	" "	21 days.	24 hours.	"	
F	35	R. Trigeminal.	10 days.	4 days.	Lactation.	
F	30	" "	14 days.	5 days.	Phthisis.	
F	30	" "	7 days.	48 hours.	Debility.	
		CHRONIC CASES.				
F	28	{R. & L. Trigeminal. / Cervico Brachial.}	18 months.	5 weeks.	Phthisis.	Rel
F	24	R. & L. Trigeminal.	4 weeks.	9 days.	"	"
M	35	{Occipital, R. & L. / Trigeminal.}	12 months.	12 days.	Nervous Debility.	Cur
F	36	Cervico Brachial.	2 months.	14 days.	Pregnancy.	"
F	26	R. & L. Trigeminal.	16 years.	18 days.	None.	"
F	40	R. Trigeminal.	4 months.	15 days.	" (Decayed Teeth.)	Nor

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Morson's Pepsine Lozenges.
Morson's Pepsine Globules.
Morson's Pancreatine Powder.
Morson's Pancreatic Emulsion.
Morson's Pancreatized Cod Liver Oil.
Morson's Saccharated Wheat Phosphates. [Makers.
Morson's Creasote (From Wood Tar) The only English
N.B.—Test of purity, Insoluble in Price's Glycerine.
Morson's Gelatine (The most economical substitute for Isinglass).
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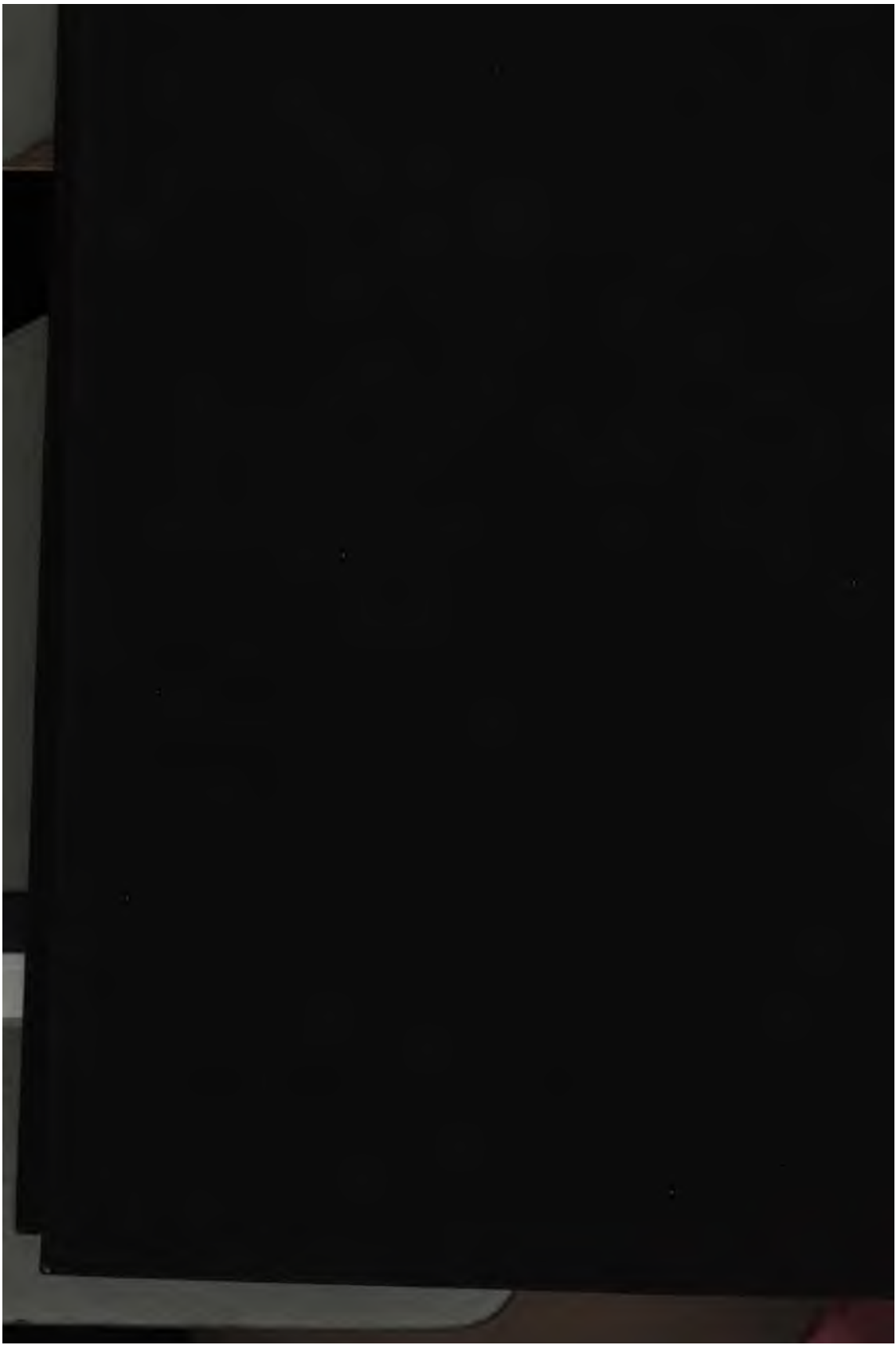
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